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ABSTRACT

This research project examined the relationship between the psycho-social malaise, alienation or anomia, and each of four psycholinguistic or semantic habit patterns: irrational ideation, identity orientation, uncritical inference behavior and allness orientation. In so doing, it sought, generally, to explicate alienation in terms of semantic habit strength and, specifically, to test Cardaci's (1971) hypothesis that alienated yough habitually indulge in the psycholinguistic misrepresentation of empirical reality. The Srole Anomia Scale served as the dependent variable measure, distributing the study's sample of 424 college students across a nine-point range, from low to high alienation. For each of the nine increasingly alienated subject groups, four independent variable measures generated their respective indexes of semantic habit strength. Chi square analyses and one way ANOVAs were utilized. Results revealed significant relationships between alienation and three of the study's four semantic habit patterns. Alienation, in this instance, correlated positively with irrational ideation, with identity orientation, and (modestly) with uncritical inference behavior. No significant relationship appeared between alienation and allness orientation. Factor analysis both substantially supported Cardaci's hypothesis that alienated youth exhibit a "semantic aberration," and revealed alienation's relationship to Johnson's (1946) "IFD Disease." (Author)

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ABSTRACT

ALIENATION IN COLLEGE STUDENTS: A RATIONAL AND SEMANTIC ANALYSIS

By

Robert H. Moore

B.A., Lehigh University, 1964

M. Ed., Lehigh University, 1965

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A Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy

WALDEN UNIVERSITY

April 1977

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ABSTRACT

This research project examined the relationship between the psycho-social malaise, alienation or anomia, and each of four psycholinguistic or semantic habit patterns: irrational ideation, identity orientation, uncritical inference behavior and allness orientation. In so doing, it sought, generally, to explicate alienation, in terms of semantic habit strength; specifically, to test Cardaci's (1971) hypothesis that alienated youth habitually indulge in the psycholinguistic misrepresentation of empirical reality.

The Srole Anomia Scale served as the dependent variable measure, distributing the study's sample of 424 college students across a nine point range, from low to high alienation. For each of the nine increasingly alienated subject groups, then, the independent variable measures (the Common Beliefs Survey, the "Is of Identity" Test, the Uncritical Inference Test and the McElroy Affective Profile) generated their respective indexes of semantic habit strength.

Chi square analyses examined scores by age, sex, race, grade, curriculum, height and weight. One way ANOVA's, product moment correlation and a nineteen variable, Varimax rotated, factor analytic solution examined the relationships

both between alienation and the independent variables and between the independent variables, themselves.

Results, consistent from analysis to analysis, revealed significant ($p < .01$) relationships between alienation and three of the study's four semantic habit patterns. Alienation, in this instance, correlated positively with irrational ideation ($r = .31$); with identity orientation ($r = .35$); and (modestly) with uncritical inference behavior ($r = .18$). No significant relationship appeared between alienation and allness orientation.

Factor analysis both substantially supported Cardaci's hypothesis that alienated youth exhibit a "semantic aberration," and revealed alienation's relationship to Johnson's (1946) "IFD Disease." In this latter connection, the nineteen variable, four-factor solution clustered both identity orientation and uncritical inference behavior together with alienation and the "Perfectionism," "Self-downing" and "Blame-proneness" subscales of the Common Beliefs Survey.

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DEDICATION

This research study speaks to the principal interests of several of the human, or behavior sciences. It draws upon sociology and social psychology's concern for the welfare of the individual in a discomfittingly industrialized and impersonal society; upon cognitive behavior psychology's fascination for industrial man's many modes of verbal self-persuasion; and upon general semantics' persistent effort to bring the language of science to bear upon the remedial and educative formulations of the mental health professions.

Accordingly, the author here dedicates his project to workers in each of the contributing disciplines--that they may continue to break new ground together.

ACKNOWLEDGEMENTS

This research project came together with the help of a lot of people. I here acknowledge and thank each for his contribution to its successful completion.

Drs. Carolyn and James Barnard rescued me from fuzzy thinking during the project's formulation phase. Drs. William West and William Gunter each shared with me his personal library and considerable encouragement. George Garwood sent reference materials airfreight from New York. And Curt and Jean Broughton, Tucker Fletcher, Jean Murfin and Jan Schwartz each gave a willing hand, after hours at USF.

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CHAPTER I

INTRODUCTION

Statement of the Problem

History has recorded the activity of dissident youth in every age--and no more poignantly in any other, than in our own. The impact of the sixties, in fact, remains a striking reminder of youth's capacity for alienation from, and active rejection of, contemporary cultural values.

Not only did the drug culture, "Yippies," and flower power emerge during this period, but radical social and political activism flourished, left and right. Young men burned their draft cards; young women, their bras. Soldiers went AWOL. Blacks turned militant. And words like "proletariat" and "bourgeois" found renewed popularity among Marxist groups that sprang up on college campuses from coast to coast.

Aroused by the ubiquity of student, socio-political disaffection, the social sciences responded with renewed interest in alienation research. From what conceptual base did they examine the phenomenon? Melvin Seeman's multidimensional definition of alienation had dominated the literature since 1959 (Seeman, 1959). That definition:

1) The incapacity to control, or significantly to influence how, or from what source, one will receive desired goods and services: powerlessness.
2) The incapacity to understand enough of what goes on and how things work to enable reward-producing decision-making: meaninglessness.
3) The incapacity to achieve culturally approved goals, within the limits of culturally approved behaviors and institutions: normlessness.
4) Holding societal values in low esteem; the rejection of generally accepted, contemporary standards and goals: cultural estrangement.
5) Holding one's own work or achievement in low esteem, except as it tends to please others or secure a reward; other-directedness: self-estrangement.
6) The sense or experience of exclusion or rejection by others: social isolation.

Not much of a profile for a college student! Indeed, if one happened to meet any but the last three of the six criteria, on the face of things, he would not likely long remain on campus.

He might reap some measure of academic and social success, if he no more than rejected his community's prevailing value system and poorly regarded the effort he made

to get by--assuming he kept making that effort. If he displayed any significant incapacity to influence his own welfare, govern his own progress, or work and relate within limits defined by his community, however, he could rather seriously jeopardize both his academic and social standing. He might easily fail, for instance, to pass a course or to land a date. In the extreme, he'd risk "flunking out" of school altogether, or land either in a hospital, or in jail.

Indeed, alienation appeared to embrace a vast domain of disturbed behaviors. Keniston spoke of the alienated individual's apathy and withdrawal; Gould of his pessimism and distrust; others of his obsessions, frustration, hostility and paranoia. As the chronically alienated student seemed only marginally fit for survival within "the system," therein lay a significant social problem (Keniston, 1960; Gould, 1965).

In order, then, adequately to understand, to communicate about and to treat, where appropriate, such a constellation of psycho-social ills, social science set out to relate its (largely Seeman's) concept, or definition, of alienation to as many observable phenomena as research could confirm. The result: a barrage of late sixties/early seventies dissertations, theses and conceptual reformation papers--at least a salvo from each of the human sciences (see chapter two)--that did tend to flesh out the profile of

the alienated student considerably, though not always to advantage.

Newly constructed alienation scales, for instance, often failed to correlate strongly with each other. Their use in research, therefore, tended to broaden, rather than narrow, the overall investigative focus. With them, nevertheless, researchers generated considerable data regarding alienation's: a) antecedent socio-political conditions; b) personality and demographic variable correlates; and c) effect upon existing social institutions (Seeman, 1975).

Unfortunately, however, even apart from alienation's definitional and measurement problems, relatively little of clinical significance emerged from the research data--at least as regards the formulation of strategies for remediation of the clinical syndrome. Neither increased awareness of the cultural forces that spawned the condition, nor a growing familiarity with its emotional and behavioral consequences yielded an empirical, or even a conceptual, grasp of the mediating process(es), within the individual, responsible for his sense of alienation.

This circumstance the present study addressed in its investigation of an hypothesis, with clinical implications, that links a student's socio-political disaffection to his psycholinguistic repertoire.

In her article, "The Road to Radicalism: A Semantic Aberration," Elizabeth Cardaci (1971) argued that the

alienated youth's apparent disdain for his personal, political, or social circumstance derives from his tendency to demand closer, if not complete, correspondence between his concept of what "ought" to happen in his world and what actually does. When he refuses to tolerate the discrepancies he finds between his verbal abstractions and objective reality (or, as general semanticists like to say, between his "map" and the "territory"), he experiences cognitive dissonance (frustration, anger), which leads to "acting out," or radical activism.

Activism, then, according to Cardaci (1971), signals the student's unwillingness to adjust to an objective reality that fails to meet his expectations. It identifies him with a political or social ideology alien to the one that sold him the faulty "map" and often leads to his throwing bombs at the "territory." This she regards as dissonance reduction.

Not all alienated youth throw bombs to reduce dissonance, of course. Some refrain from involving themselves in radical activities altogether. Social scientists, in fact, tend to distinguish such youth from radicals, or activists, with some care. Radicals, by definition, take action, whether for good or ill, in response to their disaffection. The alienated, according to preferred usage, do not (Keniston, 1968).

This research project's subject population included few, if any, of Cardaci's bomb-throwers. For one thing,

radical, reform or revolt-oriented students, while active and visible on some urban college campuses, unlike a decade earlier, at the time of the study, represented tiny minorities of their respective student bodies. For another, campus radicals generally resisted straightforward attempts at their investigation by outsiders.

But whether radical or simply alienated, the young person's psycho-social malaise over life in a culture that fails to meet his expectations and the relationship of that malaise to certain of his psycholinguistic, or semantic, habit patterns begged investigation.

This study, therefore, addressed alienation, as it found expression on the college campus, 1977. It spoke generally to the construct's rather loosely defined conceptual domain, specifically to the development of its semantic profile and, in this connection, developed a new perspective of an old social problem.

Purpose of the Study

Alienation studies, of one sort or another, have punctuated the social science literature for several decades. They have resulted in its definition as a broadly-based psycho-social ill, and have related its occurrence to a wide variety of both cultural conditions and symptomatic behaviors in the individual (Gould, 1965).

The relationship of an individual's alienation to his semantic habit patterns, however, has remained a matter of

speculation (Cardaci, 1971). This, in spite of cognitive behavior psychology and general semantics' shared interest in the semantic structure of emotional disturbance of all sorts (Ellis, 1975; Korzybski, 1958).

This study, therefore, sought to bring into focus a dimension of alienation not previously reported in the research literature. That dimension: the relationship between the occurrence of alienation and a student's tendency to employ semantic habit patterns "of a structure dissimilar to the structure of the nonverbal world" (Weiss, 1954).

The study quantified, in this regard, subjects' misperceptions, misinterpretations and misevaluations of objective reality. It then determined the degree to which selected misperceptions, etc., distinguished between alienated and normal student populations.

In describing alienation in terms of semantic habit strength, in this fashion, the study sought to contribute to the developing definition of the construct and to give the practicing cognitive behavior therapist an empirically-based entry point for clinical remediation of the condition.

Plan of the Study

In order to determine the direction and degree of relationship between the psycho-social malaise, alienation, as it appeared in a student population, and selected semantic behavior variables, the researcher personally administered

five, pen-and-pencil, criterion and independent variable measures to the subjects. Srole's Anomia Scale (SAS) served as the criterion measure, identifying subjects by degree of alienation (Srole, 1956).

Subjects also received four independent measures of semantic usage: the Common Beliefs Survey (CBS) (Bessai, 1975); the "Is of Identity" Test (IOI) (Weiss, 1954); the Uncritical Inference Test (UIT) (Haney, 1953); and the McElroy Affective Profile (MAP) (McElroy, 1975).

Data analysis involved grouping subjects by age, grade, sex, race, height, weight and curriculum. The researcher then examined the data for significant relationships among the variables, especially noting contributions, by the semantic measures, to the construct validity of alienation.

Although the study primarily described alienation in terms of its semantic components, it also addressed the relationships that appeared among the independent variables themselves. In so doing, it contributed, as well, to their construct validities.

Significance of the Study

This research study spoke to the principal interests of several of the human, or behavior, sciences. It drew upon sociology and social psychology's concern for the welfare of the individual, in a discomfittingly industrialized and impersonal society; upon cognitive behavior psychology's

fascination for industrial man's many modes of verbal self-persuasion; and upon general semantics' persistent effort to bring the language of science to bear upon the remedial and educative formulations of the mental health professions.

The study derived its significance, however, primarily from empirical investigation of the relationship between alienation and selected semantic variables. That investigation, more specifically, permit alienation's explication as a construct, in terms of measurable cognitive process behaviors. The result, in turn, sought to contribute to our understanding and treatment of the problem.

If impressed with this study's profile of the alienated student's cognitive/semantic or attitudinal set, social scientists may well take an interest in researching its acquisition, as a response to familial, educational, or other cultural influences; and its causal contribution to the development of the malaise it represents.

Limitations of the Study

1) Alienation studies of all sorts suffer the limitations imposed by the equivocal nature of the language most commonly used to describe the construct. As suggested earlier, quite a number of conceptual formulations and measures of alienation have surfaced over time, and as each has encouraged a research effort of its own, the literature now displays a wide variety of disparate findings in the area.

To some extent, the study here reported falls victim to the same language or conceptual problem. The selection of any one--or, for that matter, any combination--of the existing alienation scales practically assured it. The results of the study, therefore, speak best to the alienated population, as defined only by Srole's Anomia Scale (Srole, 1956).

2) Certain limitations appeared in the use of the study's other instruments, as well. The paucity of validity information for Haney's Uncritical Inference Test (1953), as well as the newness of both the CBS (Bessai, 1975) and the MAP (McElroy, 1975) suggested the desirability of weighing carefully conclusions drawn from their use.

3) It seemed unlikely that even an especially large sampling of the undergraduate, student populations of colleges and universities on the west coast of Florida would perfectly well represent undergraduate students nationwide. Neither, of course, would it likely represent non-college populations very well at all. This circumstance limits the extent to which one safely can generalize the findings of the present study to populations in a different locale, or of a different composition.

4) Correlational studies, by their nature, provide the researcher with information about how or whether two or more phenomena tend to covary. They permit very limited inference about causality. From a significant, positive

correlation between alienation and identity orientation, for instance, one could appropriately conclude neither that alienation promotes an identity orientation, nor that an identity orientation leads to alienation. It would remain for experimental research to confirm cause and effect relationships of this sort.

Definitions of Terms

Alienation -- A variously defined, psycho-social malaise, related to anomia; discussed briefly in chapter one and lengthily in chapter three of this research report.

Allness orientation (AO) -- A lack of awareness of the process of abstraction in inter- or intrapersonal communication; a tendency to see the world as static and unchanging; suggested by a variety of psycholinguistic behaviors, described as static orientation, polar choice orientation, unidimensional orientation, category orientation, non-relational orientation, and a-normal orientation (McElroy, 1975).

Anomia -- A variously defined, psycho-social malaise, related to alienation; discussed in chapter three of this research report; also known as anomy.

Anomie -- A variously defined social malaise, related to anomia, but characteristic of an entire culture or sub-culture, rather than descriptive of an individual.

Cognitive behavior psychology -- That branch of contemporary, behavior psychology chiefly concerned with the study of,

and public education in, the relationship between cognition and affect (thinking and feeling). Based originally upon the works of Albert Ellis (1962) and represented clinically as "rational psychology," the discipline presently speaks largely through the programs and publications of the Institute For Advanced Study In Rational Psychotherapy and the various branches of the Institute For Rational Living.

Cognitive processes -- Cognition; thoughts; beliefs; or the processes of thinking and believing, as distinguished from feeling and emoting (Neisser, 1966).

Extensional orientation -- Objectivity; the habitual avoidance of description-judgment confusion; awareness of the process of abstracting.

General semantics -- Pragmatics; the discipline devoted to the study of, and public education in, the relationship between objective reality (a material process), language (a symbolic process) and the human nervous system (behavior). Based originally upon the non-Aristotelian formulations of mathematician, philosopher Alfred Korzybski (1958), the discipline presently speaks through the programs and publications of the Institute For General Semantics and the International Society For General Semantics. Key contemporary spokespersons: J. S. Bois (1970), S. I. Hayakawa (1964), and A. Rapoport (1969).

Identity orientation -- Attribution; the semantic habit of assigning fixed values or characteristics to things or people, where the assigned values or characteristics inadequately or inaccurately describe those things or people; the equation of words with the things they represent.

Intensional orientation -- Subjectivity; the habitual attribution, to objects, of characteristics they don't possess; the failure to distinguish linguistically between reality and its verbal abstraction.

Irrational ideation (II) -- Thought or speech behavior expressive of ideas not supported by objective reality.

"Map" -- In the argot of the general semanticist, a neural response or semantic interpretation (word picture) of the "territory," which represents objective reality, apart from man's semantic interpretation of it.

Non-Aristotelian semantics -- The use of language in conscientious observance of non-Aristotelian semantic principles; characterized chiefly by the avoidance of identity statements, through disuse of the Aristotelian, equation-making verb, "to be"; also referred to as meta-Aristotelian semantics or, with reference more limitedly to speech patterns and prose style, as "E-prime" (Bourland, 1973).

Objective reality -- The reality of the "real" or material world, as contemporary science understands it; not static, but seen as undergoing constant change.

Psycholinguistics -- The interdisciplinary science concerned with the way in which man shapes and uses language, as a function of his psychological makeup.

Rational behavior -- Behavior that tends to operate in one's best interest, or that which: minimizes personal and interpersonal conflict, promotes progress toward chosen goals, reduces threats to life and limb, and keeps one in touch with objective reality (Maultsby, 1971).

Rational-emotive therapy (RET) -- That style of clinical counseling intervention developed by Albert Ellis (1962) and most often practiced by cognitive behavior, or rational, therapists; regarded as a cognitive reorientation or cognitive restructuring technique.

Semantic instruments -- Any of those tests or measures constructed to yield an index of the extent to which a person's use of language belies objective reality, in one way or another. In this study: the CBS, the IOI, the UIT, and the MAP; also referred to as psycholinguistic measures.

Semantics -- As a sub-discipline: that branch of linguistics devoted to the study of value attribution, or meaning-making, cognitive processes; concerned with the relationship between signs and symbols, and their referents. In common usage, as noun or adjective (semantic): related to the process of definition, by which words take on various shades of meaning.

Structural differential -- A teaching device representative of the process of abstracting, largely with words and symbols, from an event, all of which one cannot perceive, to that portion of it which one can perceive; to that portion of it which one can label objectively; to that portion of it about which one must infer; and so on, in a direction away from certainty.

"Territory" -- In the argot of the general semanticist, objective reality; as distinguished from the "map," which represents man's semantic interpretation of, or neural response to, objective reality.

Uncritical inference behavior (UIB) -- Inappropriate inference; jumping to conclusions; assuming; guessing.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

As outlined in Chapter I, this study speaks to the social-psychological health of the college undergraduate. It concerns his alienation--specifically, his sense of political impotence, cultural estrangement and social isolation. The study introduced, as an index of alienation (as its dependent variable), its subjects' scores on the Srole Anomia Scale (SAS) (Srole, 1956). It then examined the relationship between SAS scores and certain demonstrable semantic habit patterns (the independent variables).

In reviewing the literature of the several disciplines that contribute to the study, the researcher emphasized, mainly, points at which they interface. In this regard, this chapter first brings the study's criterion construct into focus, with a brief review of its historical development. It speaks next to both the social and psychological aspects of anomia; introduces the criterion measure; explores alienation's personality correlates; and discusses its relationship to emotional disturbance and its remediation.

The chapter turns, then, to the shared concerns of cognitive behavior psychology and general semantics. It identifies the basic principles of each; defines the semantic variables at issue throughout the study; introduces the independent variable measures; provides an empirical base for the hypothesized relationship between semantic habit patterns and alienation; and speaks to the probable relationships between the semantic variables themselves.

A day-to-day cognitive behaviorist, the researcher's theoretical perspective and use of language tend to reflect this posture.

Alienation: The Criterion Construct

Historical Background

Historically, the concept of alienation got its greatest boost from the industrial revolution which, in the opinion of its chiefest critics, reduced labor to the status of a marketable commodity; separated the craftsman from his craft; and put the whole of the working class (proletariat) into competition with itself. Assembly-line capitalism, argued Karl Marx (1959), separated the worker both from the fruits of his labor and from his community and would lead to increased class consciousness, to conflict and, ultimately, to revolution.

Not entirely original with Marx, the separation, or estrangement, theme had appeared earlier, in the charge that

man had long remained alienated from (his essential) nature. Hegel, for instance, like Feuerbach, concerned himself with the process of man's ultimate reunification with his metaphysical self (Kon, 1969). Most subsequent (post-Marxian) references to estrangement, however, rested upon some empirically observable social circumstance within the life experience of the writer (Josephson, 1962).

One such circumstance involved the loss of the empathic, spontaneous and communal value structure of the pre-industrial society to the emerging rational, purposive and individualistic structure of industrialization. Ferdinand Tonnies (1963), in this connection, noted the passage of his culture from what he termed a Gemeinschaft to a Gesellschaft orientation. His treatment of alienation as a process contributed to a lucid historical account of what he regarded as his society's irreversible secularization.

Some who observed the values shift accompanying industrialization concerned themselves more with its socio-political, than with its socio-economic base. Max Weber found his society's growing impersonality and sense of rootlessness a high price to pay for "progress." He deplored the rationalization of a burdensome political bureaucracy, describing it as over-regimental and reason-destroying (Nisbett, 1966).

Both economic and political considerations apparently contributed, during this period, to the disintegration of behavioral norms. The division of labor and the emergence of segmented interests in the community led, in Durkheim's (1933) historical view, to normlessness, or to anomie. What Tonnies (1963) referred to as a Gemeinschaft orientation, Durkheim termed mechanical solidarity. The new, alienating and anomic social order, or Gesellschaft, he called organic solidarity. Bereft of its traditional value structure, the organic community seemed to Durkheim a hotbed of mistrust and instability.

Similar themes appeared among the observations of other major social critics who, each in his own time and from his own perspective, chronicled the losses, both in societal cohesiveness and in personal life satisfaction, that he attributed to the growing political, social and economic complexities of an urban, industrial society (Mannheim, 1940; de Toqueville, 1945; Fromm, 1947; Simmel, 1950; Merton, 1963). The resulting consensus, in fact, set the stage for alienation's preservation as a psycho-social ill, by contemporary theorists.

The most broadly accepted, multidimensional profile of personal alienation, for instance, drew heavily upon the observations of Marx, Weber, Durkheim and Mannheim. As reported in Chapter I, that profile included the six component phenomena: powerlessness, meaninglessness, normlessness,

cultural estrangement, self-estrangement and social isolation (Seeman, 1959).

A common sociological view described the alienated society as having the following five characteristics. In such a society, Besag (1966) noted:

1) establishment norms poorly reflect popular preferences;
2) individual citizens (re)claim moral authority, otherwise delegated to the state;
3) citizens cannot easily find acceptable means of achieving approved goals;
4) social class determines opportunity; and
5) the establishment contributes to high levels of popular frustration and personal stress.

Most twentieth century social scientists concur in identifying both social and psychological manifestations of alienation. They describe the alienated, or anomic, individual as cut off, in other words, both from his fellow man and from himself (NIMH, 1969). This has led to some confusion in the literature and particularly plagues those who would measure the phenomenon.

Anomia and the Srole Scale

Srole (1956) used the term "anomia," in connection with his measure of alienation, to mean "self to others distance." He employed the term, he said, for the sake of

"semantic neatness." Indeed, it seemed neatly to identify the SAS with Durkheim's anomie, or normlessness. That condition described the distance that appears between the individual and his community's social norms, when the latter no longer effectively guide his behavior (Mizruchi, 1964).

As one of alienation's principal component constructs, however, anomie has suffered (and contributed to) alienation's general definitional ills. It often found use as Durkheim would have it used, as descriptive of a degenerative cultural condition. It sometimes, however, referred to the personal, psycho-social malaise of the individual. Popular (professional) usage, in fact, has tended to fog (and occasionally even to reverse) the distinction once made, by anomie and anomia, between the cultural and personal aspects of alienation.

Faia (1966), for instance, used anomie to describe the individual's inability to control certain of his life circumstances. Robinson (1973), conversely used anomia to represent a generalized, pervasive sense of social malintegration. They seem, in any event, two sides of the same coin, anomie and anomia, reflective of the reciprocal miseries whole communities and their individual citizens work upon each other. For an elaboration of the socio-cultural ill, see Whyte (1963) and Powell (1967); of the personal-psychological, Simmons (1966) and Clark (1959).

In spite of its claimed unidimensionality (Streuning & Richardson, 1965), Srole's Anomia Scale seems to capture at least three of alienation's principal components. Its powerlessness and meaninglessness, as well as its normlessness, theme contribute to its reputation as a "global" measure of alienation (Seeman, 1975).

Subjects respond either "agree" or "disagree," to the nine items of the SAS. Because "agree" responses, alone, tally to produce the score (high agreement, high alienation), the instrument may suffer somewhat from subjects' agreement response set. Its high internal consistency and satisfactory performance as a Guttman type scale, however, have made it one of the two most commonly referenced measures of alienation in social science research (Robinson, 1973, pp. 247, 256).

Not that the test hasn't generated critical dialog in the literature. Srole's (1956) analysis of the SAS' scalability, for instance, yielded a coefficient of reproducibility beyond .90; while the Miller and Butler (1966) study saw the test fall somewhat short, in this regard, at .88 and .86. Srole reported no test-retest reliability data for the instrument. And the debate over its dimensionality (uni vs. multi), moreover, likely will continue to trace alienation's conceptual development and the interests of those who research it, as it has tended to do over the past two decades.

Overall, however, the SAS' promising psychometric characteristics, ease of administration and considerable research history accounted for its use in this study.

Personality Correlates of Alienation

In this latter regard, research employing the SAS has contributed substantially to the development of alienation's profile as a psychological ill.

A Cornell University urban mental health survey, involving over 1600 subjects, for instance, found SAS scores significantly related to indexes of impaired mental health functioning and psychopathology. Findings further identified anomie as a reaction to inadequate social adaptability, expressed as pessimism, rigidity of personality, suspiciousness, hostility and withdrawal (Michael, 1967).

In his study of college age students and non-students, Whittaker (1967) identified high SAS scores with low personal integration and psychological maladjustment, as indicated by the Omnibus Personality Inventory. The high alienation group scored lower, as well, on the Adjective Check List's "Self-control," "Personal adjustment" and "Achievement" scales, than the low alienation group.

In a similar study, Simmons (1973) found a negative correlation, among undergraduate males, between scores on the Identity Achievement Scale and the SAS.

Other measures of alienation also have found use in studies related to college students' psychological health--and with similar results.

Galassi (1971), for instance, reported that groups of student counseling seekers displayed higher scores, than

groups of non-seekers, on three independent measures of alienation: Dean's, Berger's and Keniston's.

In a study in which Gould (1969) administered the Manifest Alienation Measure, the profile of the high alienation student included devaluation of peers, distrust of others, rejection of generally accepted codes of interpersonal conduct, introversion, emotional and physical complaints, depression and obsequious or other-directed behaviors.

And Siegel (1970), in his survey of college freshmen, using an alienation measure apparently of his own construction, found significant positive relationships between alienation and the following: marijuana and other drug use, solitary pursuits and distrust for fathers, mothers and peers. He determined, at the same time, that alienation related inversely with: communication with family, home visits, heterosexual dating and self-concept.

These findings correspond closely to the observation that the alienated student generally lacks college spirit, avoids athletic competition, seeks immediate gratification, withdraws under pressure, and displays distrust, pessimism, resentment, self-contempt and anxiety (Keniston, 1968a). Alienation's relationship with anxiety, however, Benson (1965) identified as curvilinear. Mid-range anomia associated more closely with high anxiety, in his study, than did either high or low anomia.

Alienated youth, according to Erikson (1959a), nevertheless, tend to doubt their capacity to cope with life. They find themselves in a state of identity diffusion, he said, struggling to reconcile their self-assigned roles with societal expectations (1959b). Jackson (1974) distinguished, in this connection, between the adolescent's resolution of this socially alienative developmental dilemma by joining the work force, and his capitulation to self-alienation, a theoretically more advanced and, therefore, more chronic condition.

Alienation: The Psycho-Social Ill

The discordant personal identity theme often appears among the suggested causes of alienation. Spinelli's (1971) analysis of several, contemporary psychological and sociological critics of the condition (Blauner, Shostak, Glazer, Hoffer, Keniston & Erikson) led him to the conclusion that counter-culture youth poorly represent the classic, Marxist struggle against oppressive, political or economic authority, but appear embroiled, instead, in a struggle out of adolescence, toward adulthood. Wrightsman (1968) concurred. The physically mature youth in search of independence, who cannot find his adult occupational/social niche, he said, finds alienation.

The more heavily psychodynamic explanations, of course, root one's alienation in his childhood. Lacking

genuine, parental acceptance and love, according to Weiss, the individual experiences anxiety, which, in turn, sponsors withdrawal as a coping mechanism (Keniston, 1968a). Judging himself incompetent, then, to sustain worthwhile relationships, Horney (1968) continued, the youth rejects first himself and, ultimately, significant others, as well.

Still, the dominant theme among alienation's several derivations (and especially among radically-alienated youth, the researcher would wager) traditionally has displayed strong Marxist overtones. The student alienation of the sixties, said Lindesmith and Strauss (1968), for instance, emerged as a function of increased college enrollment and the depersonalization of assembly-line style higher education.

Dissonance. The mid to late twentieth century trend, however, seems to have swung away somewhat from the indictment of cultural evolution, as the generative condition behind alienation. It has revealed, instead, a growing interest in the personal values and belief structures of those who display the syndrome.

Though Etzioni (1968) and Taviss (1964) saw a relationship between alienation and the (non)fulfillment of human needs (affection, recognition), Rotter (1966) spoke, in this connection, of a learned dependence upon external (control of) reinforcement.

The responsibility for the fulfillment of one's alleged "needs," and for the establishment of one's identity, according to Wheelis (1958), falls to the individual. Internal or self-reinforcement, he suggested, can reduce one's reliance upon a society over which he has little control, and with whose values he may significantly differ.

Seeman (1975), in this connection, spoke to the relevance of what he called the "discrepancy factor," the breech between reality and one's stated expectations, or the estrangement of self from the ideal human condition. Derivations of this sort strongly resemble the general semanticist's "IFD Disease," the progress of which follows the pattern: Idealization, Frustration, Demoralization (alienation) (Johnson, 1946; Postman, 1976).

One can extrapolate from these observations, of course, to Cardaci's (1971) hypothesis that alienation--particularly active alienation, or radicalism--derives from the internal sponsorship of one's psycholinguistic repertoire and semantic habit patterns.

Numerous other-than-linguistically-oriented theorists and researchers, in fact, have made the same, or a similar, point about alienation's probable cognitive antecedents.

Neider (1971), like Seeman, like Cardaci, for instance, viewed alienation as an expression of the discrepancy between what one thinks should happen in his universe and what actually does. Benson (1965), likewise, found

anomia positively related to the discrepancy between college students' aspirations and their achievements. And Sorhaindo (1970) determined that the student whose value and expectancy scores displayed the greatest disparity also generally displayed the highest alienation, though not necessarily the highest maladjustment score.[1] Clark (1959), as well, saw unmet expectations as a necessary prerequisite of the condition. The individual, he said, feels alienated to the degree to which he cannot get what he thinks he rightly deserves.

"Thwarting" of this sort, according to Stokols' (1975) psychological theory of alienation, leads to disillusionment, disenchantment and, finally to estrangement. When the individual does not get something of importance to him that he had come to expect, from someone he believes should give it to him, in other words, he begins, slowly at first, to disengage himself from the relationship in question. Neutral or inadvertent thwarting, if caught in time, does no extended damage to the relationship. Personal or intentional thwarting more typically does. One who does not sooner or later find relief for his disenchantement, therefore, risks creating for himself a condition of alienation from which, as Stokols saw it, he can extract himself only with difficulty.

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[1]This latter finding seems worth underscoring. It speaks to the noncongruence of alienation and maladjustment, a point easily lost amid an abundance of data relating one to the other. In short, whereas alienated youth often appear maladjusted to some degree, no one-to-one correspondence relates the two constructs.

Dissonance Reduction. As regards remediation of alienation, a number of related schemes emerged in the literature. Most of them spoke, in theoretical terms, to cognitive reorientation.

Reorientation, however, apparently can take place over time without intervention, simply as a function of maturation (Heider, 1958; Abelson, 1959). Or the alienated individual or his designate can work purposefully to promote it (Thibaut & Kelley, 1959). Either way it involves the reduction of the individual's dissatisfaction with his initially frustrating relationship or circumstance, by means of a downward shift of the "comparison level." In other words, if he can talk himself (or get talked by someone else) into lowering his expectation or demand for success, with regard to the circumstance in question, he will tend to reduce his perceived losses and his affective response (alienation) to those losses accordingly.

Attribution. In addition to their interest in alienation's dissonance-based derivations, psychologically oriented researchers, at the time of this study, had just begun to consider attribution a probable contributor to the development of alienation (Seeman, 1975, p. 114; Myers, 1972).

Both dissonance (value vs. expectancy) and attribution, of course, contribute to cognitive behavior psychology and general semantics' interest in alienation, as the basic

focus of each of these related disciplines concerns the psycholinguistic representation of one's personal evaluations.

Cognitive Behavior Psychology and General Semantics

Before turning directly to a discussion of the study's independent variables, it seems appropriate to distinguish between the domains of their several related and apparently-related disciplines.

One of the study's independent variable measures (the CBS, Bessai, 1975) derives from cognitive behavior psychology; the remaining three (the IOI, Weiss, 1954; UIT, Haney, 1953; & MAP, McElroy, 1975) from general semantics. Cognitive behavior psychology and general semantics, as it happens, have a great deal in common. Much of the balance of this chapter, in fact, directly or indirectly addresses their philosophic and methodological similarities.

Both cognitive behavior psychology and general semantics, however, occasionally tend to get confused with their more distantly related, sound-alike disciplines, cognitive psychology and semantics. To limit such confusion, the researcher here provides a brief profile of the principal concerns of each.

Cognitive behavior psychology, also known as rational psychology, largely concerns remediation of the affective and behavioral consequences of cognition. Cognitive behavior

psychologists, therefore, tend to inhabit clinics and hospitals, as well as universities, where they typically practice as counselors and psychotherapists and engage in clinical research (Ellis & Harper, 1975).

Cognitive psychology, on the other hand, stresses investigation of the neurophysiologic, over the affective and behavioral, concomitants of cognition. Cognitive psychologists, therefore, most often inhabit universities, where they typically teach and engage in laboratory research (Neisser, 1966).

The distinction may seem superficial at first, but even casual inspection of their respective literatures reveals substantive differences in the basic orientations, interests and tools of the cognitive behavior and the cognitive psychologist.

An even more pronounced distinction appears between the domains of general semantics and semantics.

General semantics, a philosophic step-child of psycholinguistics, mainly concerns remediation of the affective and behavioral consequences of the meaning-making, or semantic, processes. In this regard, the general semanticist resembles a mental health educator, since he works as an agent of cognitive/affective/behavioral change (Hayakawa, 1964).

Semantics, however, one of the principal sub-disciplines of linguistics (others: semiotics, syntactics),

concerns the investigation of the meaning-making processes, themselves. In this regard, the semanticist documents the linguistic habit patterns by which people of different cultures inflect their verbal languages to create and alter meaning (Leech, 1974).

Of the several related disciplines, once again, *cognitive behavior psychology* and *general semantics* make the principal contribution to this study's analysis of the criterion construct, alienation. Their compatibility, in this connection, in fact, seems most remarkable.

Each derives from a parent discipline devoted, within its particular pattern of emphasis, to the study of language, thought and meaning. Each sees adaptive behavior as a function of cognitive conditioning. Each describes the therapeutic process in terms of the objectification of client perceptions and interpretations, and of the restructuring of client evaluative processes (Ellis, 1975, pp. viii-xvii). Each, moreover, encourages its practitioners to develop rather strongly directive, didactic helping relationships. Yet, the two systems have grown to maturity (or, at least, into adolescence) apart.

No surprise. Like infants at solitary play in adjoining back yards, they simply have concerned themselves more with their own growth and development, over the years, than with joining their parents, psychology and linguistics, at the interdisciplinary fence.

Cognitive behavior psychology, for instance, has grown up around the "rational-emotive" conceptual framework of Albert Ellis (1962), a contemporary clinical psychologist. It has a twenty-two year history and a growing literature, to which Ellis, alone, has contributed more than thirty books and five hundred articles.

General semantics, on the other hand, grew up around the "structural differential" of the late Alfred Korzybski (1958), mathematician and philosopher. It has a forty-four year history and a modest literature tied philosophically to Korzybski's principal work, Science and Sanity.

Neither Ellis nor Korzybski, while the latter lived, concerned himself with the other's discipline very much at all. Ellis (1975), however, recently began to tap the general semantics movement for its professional strength and lay support; and contemporary general semanticists now frequently find occasion to acknowledge and cite the rational model as compatible with the structural differential (Baudhuin, 1975; McElroy, 1975). So, current literature does reveal some cross-fertilization between cognitive behavior, or rational, psychology and general semantics (as it now also does between psychoanalysis and linguistics [DiPietro, 1975]), although it has not yet spawned a significant volume of interdisciplinary research.

The Semantic Variables

As mentioned at the beginning of this section, cognitive behavior psychology has given one, and general semantics three, of its instruments to this study, as independent variable measures. In this connection, they collaborate to test the hypothesis that the semantic repertoire of high alienation students more seriously misrepresents reality than that of low alienation students.

The specific semantic habits at issue: Irrational Ideation (II), Identity Orientation (IO), Uncritical Inference Behavior (UIB), and Allness Orientation (AO). A brief description of each follows:

Irrational ideation identifies false-to-fact beliefs, including errors both of content and process (Bard, 1975), and frequently involves the use, or abuse, of the imperative mode. The vigorously irrational, for instance, often translate their desires into "needs." They tend, moreover, to believe that unpleasant realities "should not" occur and that such realities, when they do occur, cause their adverse emotional reactions (Ellis, 1962).

Identity Orientation, attribution, or reification, concerns the failure to distinguish between word-symbols and their non-verbal referents, between the "map" and the "territory." The high IO individual, accordingly, makes frequent use of the linking verb "to be." With it he makes equations that attribute to things characteristics they don't, in

reality, have. In this fashion, he substitutes his subjective impressions for objective reality, ignoring whatever differences exist between them (Weiss, 1961).

Uncritical Inference Behavior describes the practice of drawing conclusions on insufficient evidence. It suggests a faulty use of logic, a prejudicial viewpoint, or a misinterpretation of fact. Those who habitually draw inference uncritically unwittingly bridge the gap between premise and conclusion with an assumption. They often appear to "know," therefore, what others must simply guess at (Haney, 1953).

Allness Orientation, also known as all-inclusiveness, defines the tendency to view reality as concrete and static, to disregard the dynamics of inexorable change in the universe. The high AO individual, accordingly, displays a relatively rigid, single-valued and absolutistic use of language. His inter- and intra-personal communication reveal his frequent reliance upon words such as "always" and "never." He habitually both overgeneralizes and abstracts without awareness (McElroy, 1975).

With the study's four independent variables thus briefly defined, the researcher next addresses the broader issues of their theoretical, clinical and research relatedness.

The Rational Model

Of the four semantic habits described above, the first and broadest, irrational ideation, owes its clinical

importance to Albert Ellis (1962; Ellis & Harper, 1975). Ellis, in his development of rational-emotive psychotherapy (RET), postulated that irrational beliefs underlie emotional disturbance. People do not get disturbed (e.g., angry, depressed, anxious) by their life circumstances, in the rational view, but by the things they "tell themselves" (believe) about those circumstances.

Ellis draws support for his theoretical formulation from the observations of philosophers, poets and behavior scientists of many generations. He credits the Stoic Epictetus with its expression, in the first century A.D., "Men feel disturbed not by things, but by the views which they take of them," and notes that Spinoza and Shakespeare, among others, held the same view (Ellis & Harper, 1975).

The theme, in fact, seems well established in twentieth century psychology, since Tolman (1932), Horney (1950), Adler (Ansbacher & Ansbacher, 1956) and Lazarus (Strongman, 1970) each has written the role of cognition as mediator into his or her own account of emotional arousal. Disturbances emerge, they tend to agree, when one's evaluative self-statements, or beliefs, inaccurately describe or process objective reality.

The cognitive behavior or rational therapist, therefore, works to persuade his client to revise his thinking, in this regard, to bring it into congruence with reality. His interest in his client's belief system, in short, concerns

the validity of its content and its relationship to the client's emotional health and behavioral repertoire.

Confirmation of this relationship comes from the research efforts of Nisbett and Schacter (1966), Valins and Ray (1967) and others who have documented the effects of beliefs upon the expression of emotion. Studies by Coleman (1971), Lovaas (1964), Meichenbaum (1975) and Velten (1968), moreover, have demonstrated that self-statements tend to induce and control emotional and behavioral responses.

The model often used in RET to represent the sequence of disturbance-producing events: A-B-C. In this representation, "A" stands for "Action" and includes the meaning of any circumstance or occurrence to which one has had, or anticipates having, an unpleasant emotional reaction. "B" stands for "Belief" and includes both one's rational and irrational appraisals of, and statements about, the event, "A." "C" stands for "Consequence" and includes both the subtle biophysiologic and gross behavioral expressions of one's actual or anticipated emotional reaction to "A" (Ellis, 1962; Ellis & Harper, 1975).

The A-B-C model, then, displays cognition's position (B) in the causal chain leading to emotional disturbance and provides the practicing rational therapist with one of his principal tools. In this latter connection, therapist and client often collaboratively employ the A-B-C model in a

"rational analysis" of the client's disturbed reaction patterns. Through this process, the client learns to distinguish rational from irrational ideation.

Irrational Ideation. Ellis has identified, from clinical observation, twelve irrational ideas that he believes commonly contribute to emotional disturbance.

> 1. The idea that you must--yes, must--have sincere love and approval almost all the time from all the people you find significant.
>
> 2. The idea that you must prove yourself thoroughly competent, adequate, and achieving; or that you must at least have real competence or talent at something important.
>
> 3. The idea that people who harm you or commit misdeeds rate as generally bad, wicked, or villainous individuals and that you should severely blame, damn, and punish them for their sins.
>
> 4. The idea that life proves awful, terrible, horrible, or catastrophic when things do not go the way you would like them to go.
>
> 5. The idea that emotional misery comes from external pressures and that you have little ability to control your feelings or rid yourself of depression and hostility.
>
> 6. The idea that if something seems dangerous or fearsome, you must become terribly occupied with and upset about it.
>
> 7. The idea that you will find it easier to avoid facing many of life's difficulties and self-responsibilities than to undertake more rewarding forms of self-discipline.
>
> 8. The idea that your past remains all-important and that because something once strongly influenced your life, it has to keep determining your feelings and behavior today.

> 9. The idea that people and things should turn out better than they do; and that you have to view it as awful and horrible if you do not quickly find good solutions to life's hassles.
>
> 10. The idea that you can achieve happiness by inertia and inaction or by passively and uncommittedly "enjoying yourself."
>
> 11. The idea that you must have a high degree of order or certainty to feel comfortable; or that you need some supernatural power on which to rely.
>
> 12. The idea that you can give yourself a global rating as a human and that your general worth and self-acceptance depend upon the goodness of your performance and the degree that people approve of you. (Ellis & Harper, 1975, p. 88)

These ideas, according to Ellis, one easily acquires during his youth, in most cultures. They then tend to remain a part of the adult belief system, until specifically invalidated. They rate as irrational, Ellis has said, because they poorly represent objective reality. They flourish among us, nevertheless, because of our natural tendency to translate wishes and desires into imperative demands. They flourish also, Ellis observed, because we have, as a species, a tendency to identify our circumstance with our subjective impression of it.

These two habits, then, the tendency to employ the imperative mode in an unqualified, and therefore inaccurate, manner ("musterbation" [Ellis & Harper, 1975]), and the tendency to attribute qualities and characteristics to events and circumstances in the absence of empirical evidence

(attribution; identity orientation) generally get top priority in the clinical cognitive behaviorist's remedial work with clients.

In this latter connection, therapist and client jointly identify those specific irrational ideas to which the client seems most attached. They then directly challenge the evaluative, prescriptive (Rokeach, 1968), content and/or process errors contained within them.

A content error, for instance, appears in idea number two, since no data exist to support the notion that one must prove himself thoroughly competent, adequate and achieving. A process error, or non-sequitur, appears in number six, since its premise regarding the presence of danger does not lead to its conclusion regarding the necessity of personal upset. Both a content and a process error appear in idea number nine.

The presence of Irrational Ideation in one's cognitive repertoire, of course, does not, by itself, guarantee emotional disturbance. Dissonance results only when belief contradicts reality. As Bard (1975) has pointed out, one must not only believe that he desparately needs so-and-so's love and approval (irrational idea number one), in order to experience emotional pain, he must also hear (or, for whatever reason, believe) that so-and-so has told him "to go to hell." Errant cognition, therefore, functions as precursor, rather than as sole cause, of emotional disturbance.

In this connection, however, cognition most often remains the sole controlling variable to which the ailing client has personal access (drugs aside). When he faces an unpleasant reality he can't change, for instance, he still has recourse to his own cognitive processes and, according to the principles of RET, can rationally reorient them, so as to avoid emotional turmoil.

Outcome studies related to the use of RET and other cognitive behavior modification strategies support this view. Depression, for instance, has yielded to rational restructuring (Jarrel, 1969; Beck, 1959, 1963), as has anxiety (Deane, 1966; Richardson, 1971; Goldfried, 1971).

In this latter regard, Glass, Gottman and Shmurak lowered students' heterosexual dating inhibitions more effectively with a cognitive self-statement program, than with other modes of intervention. And Holroyd demonstrated the efficacy of challenging the content of student irrational ideations, by producing, with his treatment, lowered anxiety levels and higher grade point averages (Meichenbaum, 1976).

Challenging irrational ideation can lead to some predictable dialogs between therapist and client, some of them amusing, others stressful, few of them dull.

When a client first addresses the distinction between the "should of probability" and the "should of obligation" (Vertes, 1968), for instance, he seldom expects to wind up

reversing the anger-provoking content error, "This shouldn't have happened to me!" He easily gets led in that direction, however, by the therapist who can help him understand why the statement, "The car shouldn't start, if its battery has run down," has empirical validity, whereas, "My wife shouldn't have left the headlights on, in the first place" (another content error) has none.

A productive and often more spirited, content-challenging dialog almost routinely results where the therapist (T) finds an opportunity to observe, before his client (C) that:

T -- Things, of course, should always happen exactly as they do.

C -- Oh?

T -- Certainly.

C -- You mean . . . you mean those fascist pigs <u>should</u> go around busting heads, violating the constitution every which way, just because they don't like long hair?!

T -- Yes, I do.

C -- Oh, my God! I can't believe it!

T -- Why? Shouldn't they?

C -- No! Of course not!

T -- Why not?

C -- (glare)

T -- Seriously. Why shouldn't they have maced you clear off campus, up Main Street and out of town?

C -- Whaddaya want, a police state?

T -- No. I don't like it any more than you do.

C -- Okay then.

T -- Then, what?

C -- They shouldn't do it.

T -- Tell me why. Why shouldn't they do it?

C -- Now wait a minute. You just said . . .

T -- . . . that I didn't like it any more than you did. And I meant it. I don't like it. And neither do you. I know that. Meanwhile, why shouldn't they do it? Why, in other words, shouldn't they go right ahead and do what they apparently believe in, even though we think it inappropriate?

C -- Inappropriate? How about oppressive, fascistic, revolting?

T -- I'll buy oppressive and fascistic, but I thought you did the revolting.

C -- Ho! ho! Ho Chi Minh.

T -- Okay, revolting. So what?

C -- So, it stinks. It stinks, but they should do it, huh?

T -- (tongue in cheek) What? Bust heads? Sounds crazy to me.

C -- (earnestly) I'll tell you how crazy. Power. The whole fascist bit -- power. They head-trip on it. Cops, politicians. Same thing. They talk law and order, but it only goes one way. And if you've got long hair, forget it! The power elite takes scalps -- for control -- an ego thing.

T -- You know, you sound as though you could draw up a pretty plausible psychological profile of the stereotype, if you really got into it.

C -- I think I could, at this point. They've hassled me enough.

T -- Would it account for what we get out at this end?

C -- Whaddaya mean? I don't understand.

T -- I mean, if we did psych out your stereotypical, upper-handed fascist-type, could we account for his "crazy" behavior -- historically? developmentally? psychologically? Would we find his control-orientation-ego-thing comprehensible, in other words?

C -- Like the case history of a Pig?

T -- Or a campus head-buster?

C -- I don't see how we could miss. Wanna write a book with me?

T -- Not a bad idea -- unless you plan to blow it in the last chapter, by saying he really shouldn't do what we've just carefully accounted for.

C -- Ouch! (acquiescence)

T -- I rest my case.

The process error also invites a lively therapist-client exchange at times, one that often begins with the client's contention that somebody else's behavior has caused his emotional hurt, a popular non-sequitur. Such an exchange picks up steam when, as in this example, a young housewife revealed the premise she used to support this contention.

C -- I mean, if he just hadn't stomped out of the house like that, in the first place, I wouldn't have gotten upset.

T -- I don't doubt it.

C -- Which means he got me upset!

T -- I don't think so.

C -- Huh?

T -- Check me out. I want to make sure I've caught your meaning. I think you said, "If he hadn't stomped out on me, I wouldn't have gotten upset. But he did stomp out, therefore he did get me upset." Did I get that straight?

C -- Exactly!

T -- Okay. Now, tell me if this works the same way. "If he hadn't made love with me, I wouldn't have gotten pregnant. But he did make love with me, therefore he did get me pregnant." Whaddaya think?

C -- Now wait a minute. (softly, to herself) If he hadn't made love with me, I wouldn't have gotten pregnant. True. And I said, if he hadn't stomped out on me, I wouldn't have gotten upset. -- Okay, same thing. It works both ways. He got me pregnant. He got me upset. Cause and effect. So what?

T -- Well, same logic -- but not exactly cause and effect.

C -- Why not?

T -- Because not only did his stomping out not get you upset, but his making love with you never got you pregnant.

C -- But it did!

T -- Did it?

C -- Yes, twice, as a matter of fact.

T -- Why only twice? Surely you made love with each other more than twice.

C -- Oh, well! You mean . . . Hmmm. Okay, I get it.

T -- Okay, tell me.

C -- Well, just making love with somebody doesn't get you pregnant. A few other things have to happen.

T -- Like ovulation, fertilization, implantation?

C -- Right!

T -- Okay. So what else had to happen, after he walked out on you, in order for you to get upset?

C -- I don't know. Did I forget to douche, or what?

T -- You've got it! Let's get into that.

Next: the cognitive behaviorist, as researcher, and the discipline's developing instrumentation.

Measures of Irrational Ideation. Almost invariably, measures of irrational ideation have evolved from attempts to quantify commitment to Ellis' ten (or eleven, or twelve) most common irrational ideas. A dozen or so such scales presently exist, most of them, unfortunately, of doubtful psychometric adequacy. Several of them, nevertheless, have found some utility in the clinical practice, as springboards to discussion of their concepts with clients, in exploratory research, or as instructional aids. Some of those instruments: the Adult Irrational Ideas Inventory (Fox & Davies, 1971); the Test of Irrational Ideation (Laughridge, 1975); the Personal Beliefs Inventory (Hartman, 1968); and the Self-Rating Scale for Rationality (Bard, 1973).

Another, the Ellis Scale (MacDonald & Games, 1972), stands somewhat apart. Not, in this case, because of its psychometric excellence, but in honor, as Ellis himself doubtless would say, of its "elegance," or simplicity.

To construct it, MacDonald and Games merely juxtaposed a nine point Likert scale (from 1, completely disagree, to 9, completely agree) alongside Ellis' eleven irrational beliefs. After analysis of a preliminary run with sixty subjects, resulting in the removal of two low yield items, the Ellis Scale got put "to the test."

MacDonald and Games had 37 subjects complete both the Ellis Scale's remaining nine items and the California

Psychological Inventory (Gough, 1957). Statistical analysis then revealed a number of significant correlations.

The Ellis Scale scores correlated negatively, for instance, with the following CPI sub-scales: sociability (-.32), social presence (-.47), sense of "well-being" (-.55), self-control (-.39), tolerance (-.57), achievement via conformance (-.34), achievement via independence (-.54), intellectual efficiency (-.63), psychological mindedness (-.51) and flexibility (-.43).

The Ellis Scale's subsequent administration to 84 subjects along with the Eysenck Personality Inventory (Eysenck & Eysenck, 1968), the Taylor Manifest Anxiety Scale (Taylor, 1953), the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960), and the MacDonald-Tseng Internal-External Locus of Control Scale (MacDonald & Tseng, 1971) (to 37 subjects) also produced significant results.

Ellis Scale scores correlated positively, in this case, with neuroticism (.37), manifest anxiety (.41), and external locus of control (.44). A nonsignificant relationship between Ellis Scale and Marlowe-Crowne Scale scores (further) frees the Ellis Scale of social desirability response bias. No significant relationships appeared between Ellis Scale scores and age, academic year, father's educational level, the lie scales on either the EPI or the TMAS, the introversion-extroversion scale of the EPI, family size, or church attendance (MacDonald & Games, 1972).

Most of these relationships, offered here simply as an approximation of the domain of irrational ideation, also emerged from studies undertaken with the other irrational ideation scales. Although some of those scales, as mentioned above, seemed not altogether appropriate for rigorous research applications, at least one or two did.

Jones' (1968) Irrational Beliefs Test (IBT), for instance, resulted from quite a systematic scale development effort. Jones fashioned forty items to represent each of Ellis' ten basic irrational beliefs, to begin with. He also balanced the pool with a random distribution of half positively and half negatively worded items. The IBT's 100 item final form, then, emerged from a factor analytic study, employing 427 subjects, that bore out its item selection criteria (Ellis' ten beliefs), by producing ten factors with a mean homogeneity reliability coefficient of .74. Test-retest reliability, twice determined, generated coefficients of .92 and .88. The measure displayed its concurrent validity in correlations of .61, with a self-report psychiatric symptom questionnaire, and .42, with clinical indexes in Cattell's 16PF scale. IBT total score correlations averaged .417, multiple correlations from .432 to .630. The IBT, moreover, distinguished between the normal adult population and a mental hospital sample on over eight of its factors, generally beyond the .0005 level.

On these bases, Jones concluded that the IBT would function reliably as a measure of irrational beliefs for both research and clinical applications, and that his data substantially confirmed Ellis' theoretical position with respect to the relationship between irrational ideation and personal disturbance.

Trexler and Karst (1972) obtained similar results in their use of the IBT with anxious students. In their study, the IBT distinguished between high and low anxiety groups, where the Personal Report of Confidence as a Speaker (PRCS) and six other indices of anxiety had identified the groups in question.

The Common Beliefs Survey. In his critique of irrational beliefs assessment, however, Bard (1975) previewed a test construction project, under way at the time, that promised an instrument with psychometric characteristics superior even to those of the IBT. Recently completed, that project has produced the Common Beliefs Survey (CBS) (Bessai, 1975), the scale selected for use in this study.

The 100 item version of the CBS emerged from a factor analytic study that began with 419 items from nine pre-existing rationality scales. The heaviest contributor: the IBT.

Of the 419, 172 survived a five criteria selection and reformation process. The addition of seventeen newly constructed items brought the total package to 189--91 stated

rationally, 98 irrationally, and with each of Ellis' original twelve beliefs amply represented.

Bessai then administered the instrument to 1093 college undergraduates, who responded to its 189 items on a five point scale, from strongly agree to strongly disagree. The result: ten first and three second order factors, which she labeled according to their apparent composition, as follows:

First Order Factors

1) Perfectionism -- reflecting irrational beliefs, numbers two, nine, four and six. (Items: 4, 12, 17, 25, 33, 39, 49, 71, 87, 99)[2]

2) Realistic outlook -- reflecting acceptance of "obviously" realistic and rejection of "obviously" unrealistic statements. (Items: 18, 31, 38, 57, 60, 67, 75, 81, 86, 95)

3) Self-downing -- reflecting the tendency to feel guilty, depressed, or anxious about failure and criticism. (Items: 2, 13, 23, 29, 41, 51, 62, 69, 85, 93)

4) Importance of approval -- reflecting a reliance upon the approval of others. (Items: 1, 10, 32, 44, 52, 58, 61, 72, 83, 92)

5) Internal causation of emotions -- reflecting a belief in one's emotional autonomy. (Items: 3, 9, 16, 28, 34, 43, 50, 76, 89, 97)

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[2]Item numbers here correspond to those of the test's final 100 item version.

6) Happiness through passivity -- reflecting a belief in inertia and passivity as means of achieving happiness. (Items: 11, 21, 30, 42, 48, 54, 63, 73, 77, 88)

7) Blame proneness -- reflecting the belief that the deed makes the man, and that wrongdoers deserve punishment. (Items: 8, 19, 40, 47, 56, 64, 68, 80, 90, 94)

8) Importance of the past -- reflecting the tendency to see past events as determinants of present circumstance. (Items: 5, 14, 20, 24, 36, 45, 53, 74, 82, 98)

9) Reliance on supernatural power -- reflecting the need for a high degree of order and certainty, as prerequisite for comfort. (Items: 7, 27, 35, 55, 59, 66, 70, 78, 84, 100)

10) Problem avoidance -- reflecting a tendency to seek comfort in minimal self-discipline and responsibility. (Items: 6, 15, 22, 26, 37, 46, 65, 79, 91, 96)

Second Order Factors

1) Evaluation -- reflecting the importance of achievement and approval as prerequisite for the acceptance of self and others. (First order factors: 3, 4, 1, 7)

2) Internal locus of control -- reflecting emotional control and self-sufficiency. (First order factors: 10, 8, 5, 9)

3) Realistic outlook -- reflecting acceptance of realistic and rejection of unrealistic statements. (First order factors: 6, 2)

Examination of the test items with factor loadings of at least ±.35 revealed that eleven of Ellis' twelve irrational ideas appear among the first order factors. The twelfth appeared as the first of the second order factors.

Bessai, moreover, found four major structural categories into which the basic twelve irrational ideas seemed to fit. She identified:

1) Evaluative beliefs -- e.g., that people who commit misdeeds rate as bad, etc. (Rokeach, 1968);

2) Prescriptive beliefs -- e.g., that one must prove oneself thoroughly competent, etc. (Rokeach, 1968);

3) Primitive beliefs -- e.g., that one can give oneself a global rating, etc. (Bem, 1970) (no empirical confirmation possible); and

4) Processes -- e.g., reality testing; as in second order factor, evaluation (Bessai, 1975).

Irrational Ideation, then, identifies practically any unvalidatible statement of belief. Identity Orientation, Uncritical Inference Behavior and Allness Orientation, therefore, also qualify as Irrational Ideation. Each of these, on the other hand, represents a specific semantic construction, within II's rather broad domain, and contributes valuably, on its own, to the explication of both the construct, alienation, and the rational model, itself.

In this connection, the chapter next addresses those basic principles of general semantics, from which come the

study's remaining three independent variable measures, the "Is of Identity" Test (Weiss, 1954), the Uncritical Inference Test (Haney, 1953) and the McElroy Affective Profile (McElroy, 1975).

Non-Aristotelian Semantics

Identity orientation, uncritical inference behavior and allness orientation owe their conceptual development to Alfred Korzybski (1958). Korzybski, in his presentation of general semantics, argued that these and other linguistic anomalies thrust man routinely into conflict both with his natural environment and with himself. People do not communicate to each other what they know, in Korzybski's view, but what they think they know. Neither do they report what they have seen, but what they think they have seen. Thus, the general semanticist speaks of two worlds (Johnson, 1960), the world of things (and energies and events) and its abstraction, the world of words.

The world of things, the "extensional" world, includes all that we perceive through our senses. The world of words, on the other hand, includes only symbols, the verbal crystalization of things.

Korzybski saw the relationship between words and the things they stand for as analagous to the relationship between the map and the territory. Words, like maps, he pointed out, have neither the form nor the substance of the things they

represent. As components of a non-physical (though neurological) paradigm for a physical universe, moreover, they express at least a second-order abstraction of the extensional world.

As abstractions, of course, words have no mass, take up no space and offer no resistance to their witting or unwitting arrangement in contradiction of reality. And herein lies the problem.

The general semanticist, like the cognitive behaviorist, attributes emotional disturbance to the linguistic misrepresentation of empirical reality. He, therefore, teaches those whose language structure differs significantly from the structure of the extensional world (whose maps poorly represent the territory) the pursuit of word-thing congruence, or more specifically:

> ....to observe the limitations of abstraction;
>
> ....to distinguish between perception, interpretation and evaluation;
>
> ....to operationalize terms; and
>
> ....to avoid such specific linguistic habits (irrational ideation) as identity orientation, uncritical inference behavior and allness orientation.

Identity Orientation. Identity orientation involves what the cognitive behaviorist refers to as attribution: the assignment to things (or people, or events, etc.) of characteristics, or attributes.

Grammatically, attributions, or "identity statements," most often employ one of the forms of the verb "to be" (am, is, are, was, were, be, been, being) in a subject-verb-predicate construction. Some appear in the predicate nominative: "John is a lawyer." Some, in the predicate adjective: "John is handsome." The former, in the argot of the general semanticist, employ the "is of identity"; the latter, the "is of predication." Both constructions, however, display the structure of an equation and, in this connection, misrepresent reality.

Within an Aristotelian framework, the acceptability of the identity statement, "John is a lawyer," generally would depend only upon confirmation of John's vocational status. If he did, indeed, possess the appropriate credential, one could, in fact, legitimately claim him to "be" a lawyer.

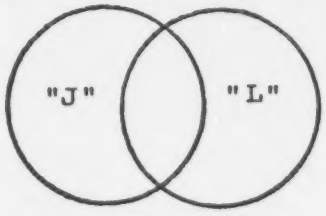
Note, however, that although Aristotelian logic calls for the terms of an equation to balance, as in "Two plus two are (equal) four," most non-arithmetic, or verbal, equations violate this basic principle. Thus, the predicate nominative construction, "John is a lawyer," permits John's identification, or equation, with nothing more than his vocational activity.

A non-Aristotelian construction would avoid this structural mishap. The general semanticist might acknowledge, for instance, that "John works as a lawyer," but not that he

"is" one. John, in all likelihood, "is" (equals) a great deal more than that, quite possibly also a golfer, a husband, a nail-biter, a Hungarian, a Jew, a cripple, etc., etc., etc. Thus, the inadequacy (imbalance) of equating the whole with one of its parts.

Equations within Aristotelian respectability also hold when reversed. Here again, however, "John is a lawyer" fails the test, since "lawyer," as a term, or construct, hardly gets its due definition from "John," alone. Lawyer, in other words, "is" not (does not equal) John, but John, plus Melvin, plus Harriet, plus Lee, plus unnumbered other member-contributors to its definition.

Imbalanced and irreversible, then, the terms, "John" and "lawyer," equate very poorly. Their relationship more nearly resembles the Venn diagramatic representation below, in which each category, "J" (all that "is" John) and "L" (all that "is" lawyer), has some territory in common with the other. So related, "John" <u>partly</u> resembles a <u>part</u> of what fully defines "lawyer." And "lawyer," in turn, gets <u>partly</u> defined by <u>part</u> of the person we know as "John."



The non-Aristotelian challenge to the verbal equation, or identity statement, does not hang on the questions of balance

and reversibility alone, however. It also involves its apparent permanence. Consider, for instance, the immutability of the well-balanced and reversible tautology, "A rose is a rose."

"A rose," the general semanticist insists, "is not (does not forever equal) a rose" (Time Magazine, May 23, 1969).

Why not?

Because the artifact itself, as a representative of a material process, ceaselessly changes.

Because a verbal abstraction wouldn't equate with its extensional world artifact, even if the latter never changed. (The map, after all, "is" not the territory.)

Because the universe appears not to contain two identical (equatable) things of any description.

The general semanticist's rejection of the concept of identity, as expressive of real world relationships, then, rests on the pre-Socratic observation that the universe, itself, seems not to honor the idea. The structure of our language simply allows us to create the illusion of identity, even though all the available empirical evidence mitigates against its existence.

On the other hand, the imbalanced, irreversible and static (non)equation of John with one of his chosen behaviors does relate the man (if falsely) to an activity in which he demonstrably indulges. It may not adequately define his

totality, or "being," of course, but "lawyer," as a descriptor, does tend to have a fairly high predictive value.

Why, then, such linguistic scrupulosity, in this regard?

Largely because the identity construction can as easily equate John with behaviors he doesn't display, as with those he does.

The significant risk one incurs in the use of the identity statement, therefore, attaches not merely to thoughtlessly labeling the whole (John), on the basis of one of its identifiable "parts" (lawyer, Jew, cripple), but even more thoughtlessly to labeling it on the basis of one's subjective reaction to one of its parts.

What, for instance, would support the assertion that "John is a scoundrel?" Or what, about John, would such a construction reliably predict?

Only the slim likelihood of his getting the respect of the person who made the statement, it would seem, since "scoundrel" connotes unfavorable judgment, but denotes no specific pattern of behavior in John.

The predicate adjectival construction, of course, also permits judgments of this sort. It not only routinely fails to describe what John "is," in any balanced, reversible, or dynamic sense, it as easily equates him with someone's subjective appraisal of him ("John is handsome"), as with one of his empirically definable attributes ("John is crippled").

The relative objectivity (definitional universality) of one's attributions, therefore, determines the degree to which he expresses word-thing congruence. Or put another way, as one simply describes or defines (rather than interprets or judges) what he sees, his verbal "map" more accurately represents the "territory."

The clinical practice, of course, has made much of this observation, in its remediation of dissonance (incongruence), or emotional maladjustment. The straight-forward cognitive reorientation dialog below, for instance, illustrates a client's clinical introduction to her errant predication.

C -- Then, when I saw what he'd done to the place -- I mean his so-called interior decoration -- I nearly threw up!

T -- Mmm!

C -- God! He'd made the whole apartment -- juk! -- like a train station. I mean olive! Can you imagine?

T -- Just not your style.

C -- I tell you it was awful! We fought over it for a week.

T -- Let me find out a little more about that -- I mean about how your tastes run. Whaddaya think of this place?

C -- What, in here?

T -- Yes, this office. I didn't decorate it. This is just pretty much the way it was when we moved in. Whaddaya think?

C -- Really, it's quite comfortable. Why? Do you plan to redecorate?

T -- No. As I say, I just want to note your reaction to the place -- but for a purpose. For instance, see that picture over the desk?

C -- Yeah.

T -- Say something about it.

C -- In twenty-five words or less?

T -- As few as you like.

C -- It's nice. I like it.

T -- Okay. But that's about you. Say something just about the picture.

C -- Just about the picture? Then, it's just really a nice picture.

T -- Well, so far that still really sounds like a statement about you. But let's see. What's nice about the picture?

C -- Well, it seems to go with the rest of your decor.

T -- How?

C -- Well, the earth tones, for one thing. And it has that same geometric look as the design in your drapes.

T -- Ah, there you go! That's about the picture. I mean, I can see the earth tones and the geometric pattern. But now -- where do I look to see what you keep calling "nice?" Where is its niceness?

C -- Well, that's just sort of an overall thing. I like it. It's nice. You know what I mean.

T -- Yes, I think I do. You like it. And because you like like it, you say it's nice.

C -- Right...Uh, well...yeah.

T -- Or is it that it really is nice. And because it's nice, you say you like it?

C -- That's it! No, wait a minute. My God, I can't even think straight today. Say that again -- I mean, both ways.

T -- Sure. Do you mean that you, first of all, like the picture, and then, because you like it, say that it's nice? Or, do you mean that you, first of all, observe that it's nice, and then, because it's nice, report that you like it?

C -- My God, it's like the chicken and the egg, only worse. I mean, they sound almost the same, but they're not.

T -- Right, they're not.

C -- But I think I was right the first time -- I mean, about the second way of putting it.

T -- You mean you, first of all, observe that the picture is nice, and you, then, having made that observation, report that you like it.

C -- Yep, that's it.

T -- Okay, then. What I want is just to be shown, on the picture, what it is that you're looking at that you call nice. I see the earth tones. I see the geometry. Now I want to see the niceness.

C -- But niceness isn't something I can just point to.

T -- Why not? Isn't it there?

C -- Well, yes and no. You might think it was nice. Then again, you might not.

T -- You mean, we might see it differently?

C -- Exactly.

T -- In other words, we might both look at exactly the same thing in the picture, and one of us might say it was nice, and the other, ugly.

C -- Yes, that could happen.

T -- Okay. Now the big question. Which one of us would be right? In other words, how do we decide what it <u>really</u> is -- nice or ugly?

C -- We can't.

T -- We can't, really? Why not?

C -- Because it's just opinion. That's all it is.

T -- But we agreed about the earth tones and the geometric design?

C -- But they were there.

T -- Where?

C -- In the picture.

T -- So where is niceness?

C -- In my head, I guess.

T -- And ugliness?

C -- In your head.

T -- And awfulness, or train station?

C -- I don't believe it!

T -- Let me guess. You spent a week "sharing" your opinions with each other.

C -- More like bludgeoning each other with them. I really don't believe I could have been that stupid. All I had to say was I don't like your lovely Penn Station decor and be done with it. But you know, I think I actually expected him to see that place as I did. Crazy. Really crazy!

Note that the cognitive behavior therapist spoke to predication, in this counseling dialog, without direct reference to its Aristotelian structure. He simply confronted the client with attribution's vulnerability to an overdose of subjectivity.

The general semanticist more likely would have pinpointed the offending verb ("to be"), in such an encounter, and have encouraged its replacement with something less absolute. "It looks (rather than 'is') nice to me," generally

works well. The more explicitly first person expression, "I like it," of course, probably works best.

E - e = E'. Even the general semanticist, however, for all his linguistic scrupulosity, doesn't routinely encourage his students to abandon the language's number one (frequency) verb altogether. David Bourland (1973), on the other hand, has approached the attribution problem with just such elegance.

Bourland developed the non-Aristotelian prose form, "E-prime" (E'). Named in observance of the mathematical formulation, "E - e = E'" (where "E" represents all the words of the English language, and "e," all the forms of the verb "to be"), E-prime represents English minus the verb "to be."

A linguist, Bourland regards E-prime as the most appropriate vehicle for scientific writing. Its use, he pointed out, results in essentially identity-free text, in which attribution generally has yielded to human observation. The style inhibits, in this regard, the formation both of value statements, and of the passive voice, in which, as physicist Daniel Schwartz (1969) noted, "things 'are measured,' 'are determined,' or 'are thought to be' by some nebulous authority."

Bourland's personal encouragement led, in 1969, to the researcher's adoption of E-prime, for his own professional

writing. Following Schwartz' example, in fact, this dissertation observes the style.

The cognitive behaviorist at large didn't get the (non-Aristotelian) word, however, until 1975. In that year, the researcher sold Albert Ellis on E-prime's compatibility with RET; purged several of the latter's best known books of the verb "to be," as co-revisor (Ellis, 1975; Ellis & Harper, 1975; Ellis, 1976); and introduced his colleagues to the concept, in a presentation at the First National Conference on Rational Psychotherapy (Chicago).

What most often captured the cognitive behaviorist's attention, however, involved not only the general semanticist's neatly reasoned disposal of the verb "to be," but his carefully logical derivation of, and research into, the relationship between several of the most salient psycholinguistic characteristics of (rational and) irrational ideation and social/emotional adjustment.

The present study, of course, profits directly from the general semanticist's efforts, in this connection. Though largely unfamiliar to social and clinical psychometry, the several semantic variable measures used in this study represent important first attempts to examine language structure as a contributor to the formation of one's personal "reality." Their use in connection with a measure of social/

emotional malaise, moreover, identifies the study's basic appeal with pragmatics, that area of linguistics concerning the relationship between language and behavior.

A description of the second of this study's three semantic variable measures follows.

The "Is of Identity Test. The "Is of Identity" Test (IOI), the most widely circulated of the general semanticist's measures, consists of a hundred, simple, unrelated propositions, to which the subject merely responds: "true," "false," or "undecided." The large majority of them contain one of the parts of the verb "to be," in either the predicate nominative (e.g., "Negroes are Africans," "Time is money."), or predicate adjective (e.g., "A wool skirt is warm," "A leaf is green.") construction. A few state relationships in other terms (e.g., "One sits on a chair," "Doctors save lives."). Virtually none gives the test away as a measure of social adjustment (Weiss, 1954).

Weiss has indicated, and corroborative research has born out, however, that the instrument does, indeed, distinguish socially adjusted from socially maladjusted populations -- and in a variety of languages other than English.

Weiss' test development research involved 516 high school age subjects, some in correctional institutions, some not. IOI scores for the correctional and non-correctional groups differed significantly at the .05 level of confidence.

The test did not discriminate on the basis of age, sex, religious affiliation, or church attendance.

Whereas Weiss' correctional group included only males, a possible weakness, Hopkins' (1958) replication study included both males and females. He drew his 387 subjects from high schools, a juvenile detention home and a mental hospital. Again, IOI scores distinguished between institutionalized and non-institutionalized subjects ($p<.01$), but ignored age, sex and religious affiliation differences.

In a subsequent study, Weiss (1961) compared the IOI scores of 200 college students with their scores from the Nelson Henman Test of Mental Maturity. A positive association appeared between the two, suggesting to Weiss that high IOI scores may relate to operational thinking.

Though the IOI's correct response pattern calls for uniformly "false" responses, Weiss claimed that its items tend not to elicit that pattern from subjects. The IOI score results from the sum of one's (incorrect) "true" responses.

Split half reliability testing of the IOI, on two occasions, yielded coefficients of .94 and .92, by means of the Spearman-Brown prophesy formula. Item analysis indicated discrimination at the .01 level of confidence. Published by the International Society for General Semantics, the IOI has found use in twenty-six countries, since 1954.

Uncritical Inference Behavior. Uncritical inference behavior, the third of this study's semantic habits, Haney (1953) described as a tendency to jump to conclusions, to guess, or to assume on the basis of insufficient evidence. Diagnostically, this amounts to flawed management of the verbal abstraction process.

Abstraction, Korzybski (1958) pointed out, first takes place at an organismic (non-verbal) level, in that our relatively "narrow-band" sensory apparatus allows us only limited perception of reality.

It takes place a second time, he noted, as we translate our perceptions into a lexicon of identity statements, or vocabulary.

Inference, however, critical or uncritical, extends the semantic authority of vocabulary to far beyond the limits of perception. A meta-linguistic process, it assigns meanings to words (or to combinations of words), at a third, a fourth and even higher levels of abstraction (Johnson, 1960).

All goes well with the process, nevertheless, if our words make a good match with reality -- if our "map" has a reasonably high predictive value. As our words less reliably predict what we can empirically validate, however, abstraction begins to lead us astray.

Critical inference, as abstraction, resembles an incomplete, or syntactically disordered, but reliable

Aristotelian syllogism. It results in the extrapolation from certainty (identity) of statements of relatively high predictive validity (probability).

An identity statement: "This is a yacht."

A critical inference: "It (probably) cost someone a lot of money."

Uncritical inference, however, leaps magically from premise to conclusion. It results in the unparsimonious extrapolation from certainty of statements of relatively low predictive validity.

The identity statement: "This is a yacht."

An uncritical inference: "It (probably) belongs to a doctor."

The inference that a given representative of the class "yacht" likely cost someone a lot of money in its acquisition seems safe enough, since yacht manufacturers very seldom give their expensive craft as gifts. The inference that the yacht in question belongs to a doctor, however, seems much riskier, since doctors represent only one of several sub-groups among which we find a high percentage of those with yacht-sized incomes.

In defense against uncritical inference, both the general semanticist and the cognitive behaviorist promote awareness of (the limitations of) abstraction.

The general semanticist, for instance, encourages one's ongoing, self-reflexive and self-corrective comparison

of his word-symbols with their real world events. The object: isomorphism, high predictability (Johnson, 1960).

The rational therapist, similarly, examines his clients' interpretations of real world events ("A's") for congruence and objectivity.

Each observes that abstraction (inference, interpretation, "meaning-making," etc.) very naturally and normally determines one's view of his personal circumstance, but when undertaken uncritically, that it can act as precursor to social or emotional maladjustment.

In the clinical practice, however, though the counselee commonly (and erroneously) accounts for his emotional upset ("C") in terms of an event ("A"), he seldom spontaneously distinguishes between his critical and uncritical inferences about, or interpretations of, the event in question. He, therefore, seldom immediately appreciates the potential difference in their impact on him.

With very little encouragement, for instance, the depressed client often translates, "I got upset, because she didn't call," into "I got upset, because she didn't care enough to call." At that point, of course, he has distinguished (often unwittingly) between his reality, her not calling, and his inference about that reality, her not caring (even though he carried his original causality error over from one to the other).

The inference may prove quite sound, of course. Even though "not calling" certainly does not mean "not caring," in any absolute sense, the client may correctly assess his friend's (non)behavior as indicative of her personal disinterest in him.

Whether she cares, in reality, or not, however, the client reacts to the belief that she doesn't, which he may, in turn, interpret (quite uncritically) to mean something about his personal worth. Thus, inference (abstraction) leads to inference leads to emotional upset.

The Uncritical Inference Test. The Uncritical Inference Test (UIT), while not as widely circulated as the "Is of Identity" Test, has remained one of the general semanticist's most commonly referenced instruments. It consists of three narrative vignettes and a set of statements about each (total: 75), to which one simply responds: "true," "false," or "?" (Haney, 1953).

Subjects get no background at test-time, of course, about the implications of uncritical inference behavior. They doubtless view the instrument as a tricky, reading comprehension test. Its use in the present study seemed most appropriate, given a subject population with a belief in (inference about?) its personal powerlessness and inability to function and relate effectively within culturally approved limits.

Haney developed the UIT as a means of assessing growth away from conclusion-jumping, as a function of general semantics training. No other such instrument apparently existed at that time. Neither had any other such instrument appeared in the literature, at the time of this study.

He established the test's content validity in consultation with a panel of experts and used it, along with the Watson-Glaser Critical Thinking Appraisal and standardized measures of reading comprehension and verbal reasoning, to pretest 350 Northwestern University undergraduates. Half of his subject group he, then, exposed to lessons on the principles of non-Aristotelian semantics. The balance of the group served as controls.

Posttesting with different forms of the pretest instruments revealed a notable gain ($p<.01$) in the uncritical inference scores (indicating lowered UIB) of experimental over control groups. UIT scores did not correlate highly, however, either with the Watson-Glaser Critical Thinking Appraisal, nor with the standardized measures of reading comprehension and verbal reasoning.

For this reason, the test's author and his "board of qualified observers" concluded that the UIT remains a "unique" measure, one unrelated to other available instruments.

In a subsequent study involving the test-retest of three experimental groups given "special inference-description

discrimination training," Haney again observed significant ($p < .1$) t score differences (Haney, 1958).

Split half reliability testing of the UIT yielded a Spearman-Brown coefficient of .84.

Published by the International Society for General Semantics, the UIT has found use in education and industry.

Allness Orientation. The fourth and last of this study's semantic habits, allness orientation, also describes a linguistic misrepresentation of the real, or extensional, world. It refers to the custom of injecting finality and certainty into one's description of things, by use of such all-inclusive concepts as: everybody, nobody, always, never, absolutely, etc. (McElroy, 1975).

In this connection, allness supports dichotomous (either-or) thinking and the unawareness of "mid-range" phenomena, or shades of gray. Allness also presupposes a concrete and static universe and, thus, relates conceptually to inflexibility and dogmatism.

The general semanticist employs a variety of devices in opposition to a linguistic structure that tends to encourage allness. He says "et cetera" a lot, for one thing. It reminds him simply that he hasn't said (and doesn't know) it all. He also realistically dates and indexes his assertions, to signify the limits of their validity.

The statement, "John_{1977} practices law," for instance, acknowledges both John's occupation, as of the given year, and

his freedom to opt into some other occupation, in some other year. It says, in other words, that John may not <u>always</u> practice law.

"It rained yesterday$_1$," in turn, suggests one's awareness that it very well might not have rained "yesterday$_2$" (in some other city).

One normally dates and indexes in prose form, of course, but however accomplished, it generally takes at least some elaboration or qualification to bring (especially) the simplest assertions within the bounds of empirical reality -- in this case, to avoid overgeneralization.

The risk, in this regard, lies not simply in "lawyer-izing" John forever, because he practices law today, but in "bad lawyerizing" him forever, because he lost a case today. Allness permits ongoing judgments of this sort -- no evidence required.

It also permits pre-judgment (prejudice) with respect to members of a class. John, of course, need not ever have lost a case to win the mistrust of those who hold certain allness convictions about nail-biters, Jews, or cripples.

Of the several linguistic formulations identified as significantly incongruent with empirical reality, allness apparently has received the least research attention. Though the concept has appeared in the literature of Korzybski (1958), Johnson (1946), Hayakawa (1964) and others, since

1933, studies related specifically to allness did not emerge until Snider (1959) and McElroy (1975) constructed their respective scales.

Allness first displayed its significant relationship to adolescent delinquency, underachievement and stereotyping behavior with the use, in Snider's (1959) study, of his Word Preference Test, an instrument that sums a subject's selection of allness-related terms from matched allness/non-allness pairs.

McElroy, in his allness literature review, expressed his belief that the validity of Snider's test could suffer from subjects' "cliché wisdom" ("never say 'never'," etc.). He therefore developed the MAP, a less transparent allness-related instrument (described below), to distinguish between adolescent groups that had had and those that had not had general semantics training. It did detect a significant difference between them ($p<.05$). It subsequently also distinguished normal from hypertensive adults ($p<.01$) (McElroy, 1976).

McElroy also turned his attention, briefly, to authoritarianism. He cited Kottman's (1963) study, for instance, which related authoritarianism significantly to an intensional orientation (an overindulgence in subjectivity). The point: allness overlaps conceptually with each of these phenomena.

As it happens, Wendell Johnson (1946) also had noted a relationship between the allness linguistic structure and dogmatism (as had Korzybski before him) and wondered whether an allness orientation might not impair one's overall adjustment. Accordingly, he designed (but did not construct) an instrument with which to measure allness. McElroy subsequently constructed the MAP around that design.

The McElroy Affective Profile. The McElroy Affective Profile (MAP), the most thoughtfully constructed allness measure, includes fifty-five items, largely two and three word descriptions of human activities and institutions (e.g., "Breast feeding babies," "Classical music," "Wife swapping") (McElroy, 1975). Subjects respond by indicating approval or disapproval on a zero-center, five point, Likert type scale. Except that most of the items tend to represent the relatively controversial aspects of contemporary American life, subjects have no way of knowing that they confront, in this instrument, anything but a preference inventory.

Allness, as McElroy measures it, in fact, has less to do simply with test item content, than with preference strength. The high allness score, in this case, reflects the selection of a large number of extreme responses to items that, given their (political, social, sexual, racial, religious) content, tend not to invite extreme responses, except from those who hold extreme (absolute or allness-oriented) views. The MAP, therefore, brings the measurement of allness into conformation with its classic definition.

McElroy identified six factors among his subjects' responses to the MAP. His inference about the probable composition of each accounts for the label he attached to it.

1) Static orientation -- reflecting a sense of "ever-presence, permanence, traditionally conceived power and authority." (Items: 55, 54, 53, 52, 51, 50, 47, 43, 38, 32, 2, 8, 16, 24, 25)

2) Polar choice orientation -- reflecting values in transition. (Items: 46, 42, 37, 31, 23, 15, 6, 7, 1, 10, 14, 12)

3) Unidimensional orientation -- reflecting a dogmatic approach to problem solving. (Items: 49, 45, 41, 36, 30, 22, 14, 6, 40)

4) Category orientation -- reflecting "violations of traditionally and culturally conceived categories and roles." (Items: 48, 44, 40, 35, 20, 12, 15, 4, 30)

5) Non-relational orientation -- reflecting a paradoxical approach to conflict resolution. (Items: 39, 33, 26, 18, 10, 2)

6) A-normal orientation -- reflecting deviation from cultural norms. (Items: 25, 17, 6, 9, 1, 42, 49)

Each of the six factors contained at least six items and satisfied a factor load criterion of ± .30.

McElroy's original test development research employed 277 subjects in a pre-experimental design. A follow-up study

employed 100 subjects in a posttest only, control group, experimental design. In neither study did the test discriminate between the variables of age, sex, or educational level.

The treatment effect, however, appeared in the significantly different allness scores earned by the experimental and control groups. Those who had received general semantics training (48 hours, over 16 weeks) earned a mean score of 29.25. Controls came in at 56.11. Significance: well beyond .01 (McElroy, 1975).

Most recently, the Department of Pharmacology at the University of Wyoming and the Wyoming Heart Association collaboratively employed the MAP in a blood pressure survey of the state of Wyoming. The study employed 500 subjects and compared MAP scores with blood pressure, height, weight, and age. Preliminary analysis of data suggested an allness-blood pressure relationship (positive correlation) and a non-allness-weight relationship. Further statistical analyses forthcoming.

The instrument, meanwhile, has begun to find use in education. It soon will appear in reports of research under way at the Department of Mass Communication, University of Wisconsin at Milwaukee, and at the Department of Education and Guidance, St. Lawrence University, Canton New York (McElroy, 1976).

Relationships within the Cognitive Domain

Although principally concerned with exploring the relationship between alienation and semantic habit strength, this study also notes, as mentioned earlier, the relationships between its four semantic variable constructs, themselves. It brought together for the first time, in this connection, a test of irrational ideation and a measure (each) of identity orientation, uncritical inference behavior and allness orientation.

Irrational ideation, of course, largely embraces disturbance related thought content. The remaining constructs identify disturbance related thought processes. The question: how much territory do these two particular domains (four variables) share, and how do they actually interact, one with another? This the study addressed in its analysis of CBS, IOI, UIT and MAP scores.

CHAPTER III

METHODOLOGY

Subject Population

The study drew its subject population from among undergraduates on six of the campuses of Florida's state university system: the University of South Florida, Tampa; the Hillsborough Community College, Ybor City and Dale Mabry campuses, Tampa; the St. Petersburg Junior College, St. Petersburg and Clearwater; the Pasco-Hernando Community College, New Port Richey. Subjects came, also, from the University of Tampa, a private, four-year undergraduate school.

The University of South Florida (USF), the Tampa Bay area's largest and most comprehensive higher educational facility, at the time of the study served over 20,000 undergraduate, graduate and medical students.

The Hillsborough Community College (HCC), the St. Petersburg Junior College (SPJC) and the Pasco-Hernando Community College (P-HCC) together offered academic and vocational associate degree programs to more than 25,000 students. A large percentage of their academic program graduates continued baccalaureate study elsewhere within the state university system.

The University of Tampa (UT), the Bay area's oldest baccalaureate degree granting institution, recruited its 2,400 students from many of the northern states, as well as from the local area.

Approximately eighty-five percent of the student bodies of the state schools came from within the state of Florida; the largest number, from metropolitan and suburban Tampa, St. Petersburg and Clearwater. That area supported a population of about 1,000,000. Hillsborough County (Tampa, not the university system) reported its black/white ratio as 80/20.

Classes participating in the study appear in Appendix A.

Testing Procedure

The researcher first distributed to each class the "Human Values Survey Participant Consent Form" (see Appendix B). He explained, at the same time:

1) that his survey sought to examine the range of college student values;
2) that, with the exception of just one of its five parts (Haney's UIT), the questionnaires solicited participants' personal sentiments, rather than right answers;
3) that they need not participate in the survey at all, if they didn't wish to; and
4) that they would remain anonymous, if they did.

The researcher then collected the consent forms and separately distributed the test materials and answer sheets (IBM forms USF 8010) to those who had agreed to participate.

Note, at this point, the researcher's reference to class members as "participants" in, rather than as subjects of, the study. Note, also, his use of the terms "survey" and "questionnaire," rather than test, and his focus upon "values," rather than upon alienation, or irrational ideation. Chosen for its semantic impact, the researcher's use of terms represented his purposeful effort to sustain, in his subjects, a spirit of research collaboration, and to minimize their developing a defensive cognitive set, with regard to the test items.

An additional procedural step taken to minimize the effects of subject response set involved manipulating the sequence of tests within the battery. In this fashion, the researcher arranged for each subject group to receive the tests in a different order.

The researcher then personally administered the study's five paper and pencil psychometric tests and demographic variable questionnaire (see Appendix C).

Test Instruments

The Srole Anomia Scale (SAS) (Srole, 1956); the Common Beliefs Survey (CBS) (Bessai, 1976); the "Is of Identity" Test (IOI) (Weiss, 1954); the Uncritical Inference Test (UIT) (Haney, 1953); and the McElroy Affective Profile (MAP) (McElroy, 1975).

The Demographic Variable Questionnaire solicited age, grade, sex, race, height, weight and curriculum information from the subjects. In lieu of making direct measurements, the researcher accepted a self-report of height and weight, as he did the other demographic data.

Scoring Procedure

Testing completed, the researcher held three IBM forms USF 8010 containing a total of 339 item responses, for each of 462 subjects. He then personally posted the eight demographic variable items from each subject's Demographic Variable Questionnaire to his answer sheet, as a means of limiting error in the translation of numerical data (age, height, weight) into a "base five" sense mark. The key-punch operation, therefore, involved the transfer, from answer sheets to cards, of more than 160,000 bits of information.

Because of the magnitude of the task, the researcher turned to the University of South Florida's Testing and Advanced Placement Center for use of its optical mark reading, IBM 1230 Scanner and IBM 534 Keypunch equipment in the transfer process. The result: a 347 item, three card file for each subject.

At this point, the researcher packed the IBM USF 8010 answer sheets and a duplicate item card file into storage for safe keeping and sent the original item card file to Richard Urbano Associates (Tallahassee, Florida) for

extraction and computer analysis, with SPSS (Nie et al., 1975), of the study's thirty-three demographic, dependent and independent variables (see Appendix D).

The demographic variables, of course, emerged from the data as simple distributions, by age, grade, sex, race, height, weight and curriculum. The dependent and independent variable scores required computation. The procedure for computing each follows.

Srole Anomia Scale

Subjects responded to the SAS' nine items by selecting one of two response choices: "agree," or "disagree." A subject's SAS score equaled the sum of his "agree" responses. Its computation required neither weighting, nor any additional manipulation of item response values. The range of possible scores went, therefore, from zero (least alienated) to nine (most alienated) points. The SAS has no subscales.

The Common Beliefs Survey

Subjects responded to the CBS' 100 items on a five point scale, between extremes of "strongly agree" and "strongly disagree." The scoring procedure called for assigning four points to correct, and zero points to incorrect, extreme responses. "Agree" and "disagree" responses each received three points, when in the correct direction; one, when incorrect. "Undecided" responses received two points.

Item scores then summed straightforwardly to produce the test's thirteen factor and total scores. No additional weighting went into the computation of either.

On this basis, the researcher computed fourteen CBS scores for each subject. The range of possible scores for each of the ten first and three second order factors, zero (least rational) to forty[1] (most rational); for the whole instrument, zero to 400.

The test's 100 items contribute to its first order factor structure as follows:

1) Perfectionism -- 4, 12, 17, 25, 33, 39, 49, 71, 87, 99;
2) Realistic Outlook -- 18, 31, 38, 57, 60, 67, 75, 81, 86, 95;
3) Self-downing -- 2, 13, 23, 29, 41, 51, 62, 69, 85, 93;
4) Importance of approval -- 1, 10, 32, 44, 52, 58, 61, 72, 83, 92;
5) Internal causation of emotions -- 3, 9, 16, 28, 34, 43, 50, 76, 89, 97;
6) Happiness through passivity -- 11, 21, 30, 42, 48, 54, 63, 73, 77, 88;
7) Blame proneness -- 8, 19, 40, 47, 56, 64, 68, 80, 90, 94;
8) Importance of the past -- 5, 14, 20, 24, 36, 45, 53, 74, 82, 98.
9) Reliance on supernatural power -- 7, 27, 35, 55, 59, 66, 70, 78, 84, 100;

---

[1]Second order factor range adjusted in computation, for ease of comparative analysis.

10) Problem avoidance -- 6, 15, 22, 26, 37, 46, 65, 79, 91, 96.

The test's ten first order factors contribute to its second order factor structure as follows:

1) Evaluation -- 3, 4, 1, 7;
2) Internal locus of control -- 10, 8, 5, 9;
3) Realistic outlook -- 6, 2.

The "Is of Identity" Test

Subjects responded to the IOI's 100 items by selecting one of three response choices: "true," "false," or "undecided." A subject's IOI score equaled the sum of his "false" and "undecided" responses. Its computation required neither weighting nor any additional manipulation of item response values. The range of possible scores went, therefore, from zero (highest identity orientation) to 100 (lowest identity orientation) points. The IOI has no subscales.

The Uncritical Inference Test

Subjects responded to the UIT's seventy-five items by selecting one of three response choices: "true," "false," or "unknown." A subject's UIT score equaled the sum of his correct responses. Its computation required neither weighting nor any additional manipulation of item response values. The range of possible scores went, therefore, from zero (highest uncritical inference behavior) to seventy-five (lowest uncritical inference behavior) points. The UIT has no subscales.

The McElroy Affective Profile

Subjects responded to the MAP's fifty-five items on a five point scale, between extremes of "strongly approve" and "strongly disapprove." The scoring procedure called for assigning two points to extreme responses, regardless of their direction, and one point, likewise, to both "moderately approve" and "moderately disapprove" responses. The sum of these, either for the test as a whole, or for items related to any of its factors, equaled the subject's allness or factor scores. His nonallness score equaled the sum of his "neutral" responses, for the test as a whole.

On this basis then, the researcher computed eight MAP scores for each subject. The range of possible total allness scores, zero (lowest) to 110 (highest); of nonallness scores, zero to fifty-five. The ranges of possible scores for the MAP's six factors vary according to the number of items that contribute to each, as follows.

1) Static orientation -- 2, 3, 16, 24, 25, 32, 38, 43, 47, 50, 51, 52, 53, 54, 55; range: zero to thirty;
2) Polar choice orientation -- 1, 6, 7, 10, 12, 14, 15, 23, 31, 37, 42, 46; range: zero to twenty-four;
3) Unidimensional orientation -- 6, 14, 22, 30, 36, 40, 41, 45, 49; range: zero to eighteen;
4) Category orientation -- 4, 12, 15, 20, 30, 35, 40, 44, 48; range: zero to eighteen;

5) Non-relational orientation -- 2, 10, 18, 26, 33, 39;
range: zero to twelve;

6) A-normal orientation -- 1, 6, 9, 17, 25, 42, 49;
range: zero to fourteen.

Missing Data

Following the computation of scores, the researcher noted that several test protocols appeared with one or more items either mismarked or left blank. Some subjects probably dealt with ambivalence in this fashion. Others, doubtless, literally missed the mark and gave the scanner nothing to read. The appearance of incomplete protocols, nevertheless, called for remedial programming of the computer, in advance of data analysis.

The researcher decided, in this regard, to exclude from analysis any of a given subject's test protocols not at least ninety-five percent complete.

As a nine item test, of course, the Srole Anomia Scale would get cut back more than five percent by the loss even of one response. The effect of prorating, then, might tend too markedly to distort the distribution of scores. Only complete SAS protocols, therefore, qualified for data analysis.

The ten, ten-item, first order factors of the Common Beliefs Survey, also, would suffer inordinately the loss of one response. Therefore they, too, qualified for inclusion

in the analysis, only if complete. On this basis, as many as five of a given subject's first order, and all three of his second order, factors might get dropped, in preservation of the maximum overall loss level of five percent and the validity of the CBS total score.

The same application of the rule governed the scoring of the McElroy Affective Profile. As one unanswered item in any factor (smallest item number, 6; largest, 15) would result in a loss in excess of five percent, only complete MAP factor protocols qualified for inclusion in the computation of factor scores. The rule also worked to keep overall losses at or below the five percent level.

As it applied to the "Is of Identity" Test and to the Uncritical Inference Test, the rule simply excluded from analysis any protocol with unanswered items in excess of the five percent limit.

In order, then, to preserve the integrity of the distributions of scores, the researcher prorated (up to five percent) for missing data. The applicable formula:

$$X_2 = \frac{X_1 \ (I_2)}{I_1}$$

Where: I_1 = the number of completed items

I_2 = the number of items on the test

X_1 = the test score obtained on the incomplete test

X_2 = the test score prorated for missing items

The summary of missing data limits that appears in Table 1 lists the maximum number of unanswered items that the stated scale or subscale could display and remain in the analysis.

TABLE 1

MISSING DATA LIMITS FOR ALL SCALES AND SUBSCALES

SAS -- none
CBS first and second order factors -- none
CBS total -- five items
MAP factors -- none
MAP total -- three items
IOI -- five items
UIT -- four items

The reader will note, in Chapter IV, that the researcher's rather conservative management of missing data caused the total number (N) of scores to vary somewhat from test to test and analysis to analysis.

CHAPTER IV

RESULTS OF DATA ANALYSIS

Introduction

This chapter presents the results of computation and analysis of data gathered in connection with the study. It begins with a description of the study's demographic variables (sex, age, race, curriculum, grade, height and weight). It next presents the results of criterion (SAS) and independent variable (CBS, IOI, UIT & MAP) measurement, on a test by test basis. It then describes the relationships between the criterion and independent variables, and between the independent variables themselves. It turns, finally, to an examination of their common factor structure.

Demographic Data

The original student subject population from which the researcher gathered data numbered 462. The removal of badly mismarked or unreadable answer sheets reduced that number to a basic study sample of 424. This group included 276 females (65%), 146 males (35%) and 2 of unspecified sex.

The distribution of ages ranged from seventeen to sixty-five. It clustered somewhat about the mode, nineteen,

which represented 21 percent of the population. Positive skewness (2.03) put the mean age at twenty-four.

Whites represented 92 percent of the total population; Blacks, 6 percent; other races, 2 percent.

Fifty-one percent of the subjects had enrolled in a four year academic curriculum; 32 percent, in a two year academic curriculum; 8 percent, in a two year vocational curriculum; and 6 percent, in a five year professional curriculum. The balance (3%) either had graduated from college, or sought no degree.

The distribution by grade level revealed the composition of the group as freshmen, 40 percent; sophomores, 37 percent; seniors, 11 percent; juniors, 9 percent; and graduates, 3 percent.

Height and weight data revealed essentially normal (bimodal) distributions, ranging from 4 feet 11, to 6 feet 8 inches; and from 82 to 275 pounds.

Tables 2 and 3, below, summarize the continuous and discrete demographic data.

TABLE 2

CONTINUOUS DEMOGRAPHIC VARIABLES

Variable	Mean	Median	Mode	Skewness	S.D.	N
Age	24.37	20.85	19.00	2.03	8.57	421
Height	5.54	5.51	5.50	.48	.31	420
Weight	138.72	130.48	115.00	1.00	28.96	421

TABLE 3

DISCRETE DEMOGRAPHIC VARIABLES

Curriculum	%	Grade	%	Race	%	Sex	%
4 yr. ac.	51	Fresh.	40	White	92	Female	65
2 yr. ac.	32	Soph.	37	Black	6	Male	35
2 yr. voc.	8	Jrs.	9	Other	2		
5 yr. prof.	6	Srs.	11				
Grad/non-d.	3	Grads.	3				

Criterion Measurement

Test scores from the administration of the Srole Anomia Scale (SAS) to 397 subjects ranged from zero to eight. The study population's mean SAS score fell at 3.48; standard deviation, 2.15.[1] The higher scores, on this nine-point instrument, indicate high alienation.

Chi square analysis revealed that race, alone, among the demographic variables, related significantly to the SAS. Blacks demonstrated slightly higher levels of alienation than Whites ($X^2=33.1$, $df = 8$, $p < .01$). Their relatively light represenation (6%) in the subject population, however, made elaboration on this theme unattractive. Neither age, sex,

[1] A more detailed summary of statistics describing the SAS and the study's other measures appears in Table 6, on page 96.

grade curriculum, height, nor weight related significantly to alienation (see tables 4 and 5, below).

TABLE 4

RELATIONSHIP OF CONTINUOUS DEMOGRAPHIC VARIABLES TO SAS

Variable	N	r	p<
Age	395	-.06	.11
Height	393	-.05	.14
Weight	395	.04	.22

TABLE 5

RELATIONSHIP OF DISCRETE DEMOGRAPHIC VARIABLES TO SAS

Variable	Chi Square	df	p<
Sex	12.68	8	.12
Grade	20.00	32	.95
Curriculum	51.50	40	.10

Independent Variable Measurement

Irrational Ideation

Test scores from the administration of the Common Beliefs Survey (CBS) to 383 subjects ranged from 183 to 349. The study population's mean CBS score fell at 244.78. The distribution appeared substantially symmetrical (skewness=.46) and had a standard deviation of 26.41. The higher scores, on this 400-point instrument, indicate low irrational ideation. One way ANOVA's of CBS scores, by all demographic variables revealed no statistically significant relationships.

Identity Orientation

Test scores from the administration of the "Is of Identity" Test (IOI) to 370 subjects ranged from nineteen to ninety-nine. The study population's mean IOI score fell at 59.90. The distribution displayed slight negative skewness (-.15) and had a standard deviation of 13.67. The higher scores, on this 100-point instrument, indicate low identity orientation. One way ANOVA's of IOI scores by all demographic variables revealed no statistically significant relationships.

Uncritical Inference Behavior

Test scores from the administration of the Uncritical Inference Test (UIT) to 389 subjects ranged from seventeen to seventy-one. The study population's mean UIT score fell at

42.46. The distribution appeared substantially symmetrical (skewness=.22) and had a standard deviation of 11.68. The higher scores, on this 75-point instrument, indicate low uncritical inference behavior. One way ANOVA's of UIT scores, by all demographic variables, revealed two statistically significant relationships. The strongest of these appeared in an eleven point disparity between the mean scores of Blacks and Whites ($F(3,381)=6.71$, $p < .01$); the other, in a four point disparity between those of males and females ($F(1,385)=10.03$, $p < .01$). The former speaks undefinitively to the Black/White score relationship, due to the relatively small sample (N=24) of Black subjects in the comparison. The latter, however, seems a reasonably clearcut case of the "girls" having beaten the "boys."

Allness Orientation

Test scores from the administration of the McElroy Affective Profile (MAP) to 413 subjects ranged from 22 to 106. The study population's mean MAP score fell at 62.53. The distribution appeared substantially symmetrical (skewness=.18) and had a standard deviation of 14.12. The higher scores, on this 110-point instrument, indicate high allness orientation. One way ANOVA's of MAP scores by all demographic variables revealed no statistically significant relationships.

Table 6, below, contains a detailed list of statistics descriptive of the distributions of the study's criterion and independent variable scores.

TABLE 6

DESCRIPTIVE STATISTICS FOR
ALL MAJOR VARIABLES

Statistic	SAS	CBS	IOI	UIT	MAP
N	397	383	370	389	413
Mean	3.48	244.78	59.90	42.46	62.53
Median	3.41	244.00	60.86	1.97	62.75
Mode	2.00	247.00	56.00	42.00	63.00
Skewness	.14	.46	- .15	.22	.18
Kurtosis	- .87	.62	- .12	- .76	.11
S.D.	2.15	26.41	13.67	11.68	14.12
S.E.	.11	1.35	.71	.59	.69
Range	8	166	80	54	84

SAS vs. Independent Variables

The researcher next addressed the study's principal focus--the relationship between a measure of alienation and indexes of semantic habit strength. In this connection, this section explores SAS score variance, in terms of CBS, IOI, UIT and MAP scores.

The researcher first computed the mean independent variable scores for each of the nine response categories of the criterion measure. This permitted a comparison of SAS scores, for subjects scoring from zero to eight, with their mean CBS, IOI, UIT and MAP scores. The results of this analysis follow.

SAS/CBS

Table 7 reveals a decreasing monotonic relationship between the SAS and CBS. Low SAS subjects, in this case, placed high on the CBS, while high SAS subjects earned low CBS scores. The extreme means, in fact, differed by twenty-nine points, strong evidence of a relationship between alienation and irrational ideation. A one way ANOVA on CBS means revealed a statistically significant effect ($F(8,351)=4.88$, $p < .01$) due to SAS groups. In corroboration of this relationship, product moment correlation of the full range of SAS and CBS scores produced a coefficient of -.31 ($p < .01/N=360$).

SAS/IOI

SAS scores also displayed a very visible relationship with IOI scores, an index of alienation's correlation with identity orientation. Low alienation subjects scored twenty points higher on the IOI than did high alienation subjects. A one way ANOVA on IOI means revealed a statistically significant effect ($F(8,342)=6.35$, $p < .01$) due to SAS

groups. In addition, product moment correlation of the full range of SAS and IOI scores produced a coefficient of -.35 ($p < .01/N=351$).

SAS/UIT

A relationship also appeared between SAS and UIT scores. An average of ten UIT points, in this case, separated high and low alienation groups. Again, the direction of the relationship associated high alienation with low UIT scores, or high uncritical inference behavior. A one way ANOVA on UIT means revealed a statistically significant effect ($F(8,355)=2.25$, $p < .02$) due to SAS groups. Product moment correlation of the full range of SAS and UIT scores produced a modest -.18 ($p < .01/N=364$).

SAS/MAP

No relationship appeared between SAS and total MAP scores. MAP means for the nine SAS groups, in fact, seemed quite mixed, on visual inspection. Each approximated the mean for the total population (±2.5 pts.), but, together, they formed no readily identifiable pattern that would relate alienation to allness orientation. The one way ANOVA on MAP means revealed no statistically significant effect ($F(8,379)=.87$, $p < .54$) due to SAS groups. Neither did product moment correlation find a statistically significant relationship between SAS and MAP scores.

Table 7 displays the CBS, IOI, UIT and MAP means associated with each of the nine, discrete SAS groups. Table 8 lists the Pearson product moment correlations of SAS with each of the major, independent variable scores.

TABLE 7

MEAN INDEPENDENT VARIABLE SCORES
BY SAS GROUPS

SAS Score Groups - N		CBS Mean - N		IOI Mean - N		UIT Mean - N		MAP Mean - N	
0	37	257.73	33	67.06	34	44.15	34	65.33	36
1	46	254.92	40	64.24	42	46.45	44	60.22	46
2	61	249.22	59	63.83	58	44.44	54	61.22	60
3	60	247.65	51	61.10	51	43.50	54	61.37	57
4	57	242.69	52	57.67	46	40.25	52	65.16	56
5	59	235.83	54	57.75	53	41.24	58	62.76	59
6	40	234.65	37	52.58	36	40.62	37	63.42	38
7	26	234.46	24	54.19	21	41.14	21	65.23	26
8	11	228.60	10	47.50	10	33.50	10	61.10	10

TABLE 8

PEARSON PRODUCT MOMENT CORRELATION COEFFICIENTS,
SAS BY ALL MAJOR INDEPENDENT VARIABLES

Statistic	CBS	IOI	UIT	MAP
r	-.31	-.35	-.18	.03
p<	.01	.01	.01	.23
N	360	351	364	388

Independent Variable Relationships

The researcher next broke the distribution of scores, for each of the study's four independent variables, into ten approximately equal groups[2] and computed means for each. For each of each variable's ten discrete means, he then computed mean scores for each of the remaining three variables. The result appears in tables 9, 10, 11 and 12, in support of the analyses of variance among CBS, IOI, UIT and MAP scores reported below.

CBS/IOI, UIT, MAP

Table 9, for instance, displays the IOI, UIT and MAP relationships to the CBS. One way ANOVA's on IOI, UIT and MAP means revealed statistically significant effects due to CBS groups, only for the IOI and UIT. A statistical summary appears in table 13.

IOI/UIT, MAP, CBS

Table 10 presents the UIT, MAP and CBS relationships to the IOI. One way ANOVA's on UIT, MAP and CBS means revealed statistically significant effects due to IOI groups, for each.

UIT/MAP, CBS, IOI

Table 11 presents the MAP, CBS and IOI relationships to the UIT. One way ANOVA's on MAP, CBS and IOI means

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[2]The use of convenient integer values, rather than decile computations, in this connection, resulted in slight variations in the number (N) of subjects from group to group.

revealed a statistically significant effect due to UIT groups, only for the IOI.

MAP/CBS, IOI, UIT

Table 12 presents the CBS, IOI and UIT relationships to the MAP. One way ANOVA's on CBS, IOI and UIT means revealed a statistically significant effect due to MAP groups, only for the IOI.

Product moment correlation coefficients expressing the relationships among the CBS, IOI, UIT and MAP appear in table 14, on page 105.

TABLE 9

IOI, UIT AND MAP MEANS BY CBS GROUPS

	CBS Group Means - N	IOI Mean - N	UIT Mean - N	MAP Mean - N
1)	202.49 37	52.47 34	37.78 36	66.03 36
2)	215.77 39	56.41 34	44.08 36	63.54 39
3)	226.49 39	53.86 35	38.38 37	65.11 38
4)	235.14 43	57.54 39	39.38 40	59.42 43
5)	241.35 37	61.26 35	47.17 35	62.49 37
6)	246.38 34	60.22 27	42.19 31	60.09 34
7)	253.29 38	61.06 34	44.59 34	59.92 38
8)	261.64 39	62.58 38	42.28 36	61.05 38
9)	271.08 39	64.60 35	45.89 37	65.76 37
10)	294.55 38	64.73 33	43.70 37	66.39 38

TABLE 10

UIT, MAP AND CBS MEANS BY IOI GROUPS

	IOI Group Means - N		UIT Mean - N		MAP Mean - N		CBS Mean - N	
1)	34.69	36	36.59	34	71.16	36	231.83	36
2)	44.73	37	37.05	36	67.83	36	234.53	34
3)	51.24	42	40.05	39	65.28	42	243.38	42
4)	55.52	42	42.49	41	69.00	42	240.05	37
5)	59.74	35	43.94	33	63.28	35	246.20	35
6)	63.55	38	44.08	35	62.24	37	246.97	36
7)	66.94	37	44.57	37	59.24	37	253.27	33
8)	69.84	37	44.28	36	57.77	35	245.85	34
9)	74.20	34	48.39	31	59.09	33	254.46	28
10)	83.91	32	47.43	28	54.26	31	257.10	29

TABLE 11

MAP, CBS AND IOI MEANS BY UIT GROUPS

	UIT Group Means - N		MAP Mean - N		CBS Mean - N		IOI Mean - N	
1)	24.85	41	65.00	39	233.47	34	56.06	32
2)	29.98	46	65.91	44	241.39	43	51.68	44
3)	33.40	37	59.54	37	245.88	34	55.17	35
4)	37.32	40	62.69	39	238.31	38	58.86	36
5)	41.22	41	64.71	41	248.90	41	62.03	34
6)	44.36	39	58.49	39	245.94	37	57.68	34
7)	47.87	40	62.00	39	251.14	36	64.20	39
8)	52.39	38	62.45	38	243.94	36	65.91	33
9)	57.84	37	63.51	37	251.08	35	62.16	37
10)	64.17	30	59.86	29	249.32	25	67.50	26

TABLE 12

CBS, IOI AND UIT MEANS BY MAP GROUPS

	MAP Group Means - N		CBS Mean - N		IOI Mean - N		UIT Mean - N	
1)	38.98	43	245.66	38	67.72	36	42.84	38
2)	47.76	38	241.70	34	64.74	31	41.51	37
3)	52.59	42	244.11	35	63.88	34	44.05	41
4)	56.70	37	241.03	34	59.06	31	42.76	34
5)	60.74	42	245.81	38	62.35	37	44.59	39
6)	63.86	44	248.77	40	63.40	42	43.60	38
7)	66.95	41	248.92	37	57.55	36	42.92	36
8)	71.00	45	241.48	44	54.80	41	41.09	42
9)	77.69	45	241.00	44	52.97	41	41.72	43
10)	89.75	36	250.09	34	52.46	35	40.21	34

TABLE 13

SUMMARY OF ANOVA'S ON ALL INDEPENDENT VARIABLES

	Tests	F Ratio	df B.	df W.	p<
1)	IOI x CBS	3.58	9	334	.01
2)	UIT x CBS	2.72	9	349	.01
3)	MAP x CBS	1.42	9	368	.18
4)	UIT x IOI	4.12	9	340	.01
5)	MAP x IOI	5.76	9	354	.01
6)	CBS x IOI	3.43	9	334	.01
7)	MAP x UIT	1.18	9	372	.30
8)	CBS x UIT	1.71	9	349	.08
9)	IOI x UIT	5.66	9	340	.01
10)	CBS x MAP	.67	9	368	.74
11)	IOI x MAP	6.41	9	354	.01
12)	UIT x MAP	.53	9	372	.85

Factor Analysis

Test scores, to this point, have revealed statistically significant relationships between alienation and three of the study's four semantic habits: irrational ideation, identity orientation, and uncritical inference behavior. The fourth, allness orientation, seems practically unrelated both to the study's criterion phenomenon and, with one exception, to the other semantic habits, as well.

In addition to testing for relationships between means and to employing correlational techniques, however, the researcher chose, also, to undertake a factor analytic description of the domain shared by the criterion and independent variables--the better to explicate each, in terms of the others. The elements of that description follow.

Examination of Five Major Variables

Table 14 presents a matrix of correlation coefficients, representing a cross between the study's five major measures. Examination of the relationships therein suggests that none of the measures correlated more strongly with any other, than the CBS and IOI did, as already reported, with the SAS. The IOI, alone, moreover, appeared to share something with each of the rest of the measures.

TABLE 14

COEFFICIENTS OF CORRELATION BETWEEN FIVE MAJOR MEASURES

	SAS	CBS	IOI	UIT
SAS	1.00			
CBS	- .31	1.00		
IOI	- .31	.25	1.00	
UIT	- .16	.14	.30	1.00
MAP	- .02	.09	- .27	- .05

Correlation coefficients in table 14 (the table from which the researcher calculated factors), however, differ slightly from those calculated earlier in the analysis of data. The correlations analyzed in the factor analysis resulted from a rigorous listwise purge of incomplete test protocols. This required each admissible subject to have a complete protocol (blanks <5%) for each of the nineteen variables in the analysis. It resulted in an N of 294 and slight variations in some of the correlation coefficients, by comparison to earlier, pairwise purge calculations.

In any case, the researcher first factored the coefficient matrix representing the study's five primary variables, using Squared Multiple Correlations as communality estimates. He then examined the resulting Eigenvalues (see table 15, below) to determine just how many factors he might retain for evaluation.

TABLE 15

EIGENVALUES FOR FIVE MAJOR VARIABLES

Eigenvalue	Percentage of Variance	Cumulative Percentage
1.77	35.4	35.4
1.17	23.4	58.7
.85	17.0	75.7
.68	13.6	89.3
.53	10.7	100.0

The first two Eigenvalues in the sequence represented 58.7 percent of the variance; the last three, only 41.3 percent. Eigenvalues one and two, moreover, remained above the customary cut-off point (1.0), whereas four and five appeared below it. These observations, plus the appearance of a steeper drop between Eigenvalues two and three, than between any two figures farther down the sequence, suggested the appropriateness of pursuing a two-factor solution.

The Unrotated Two-Factor Solution. Of the two, principal factors displayed in the unrotated factor matrix (see table 16, below), factor one appears to contain most of the study's major, related variables. A general factor, of sorts, it omits, as a major contributor,[3] only the MAP, which appears in factor two. The CBS loaded more heavily onto factor one, but appears in factor two with some strength, as well. From its loadings and communality score, the IOI seems the heaviest all around contributor to the matrix.

TABLE 16

UNROTATED TWO-FACTOR MATRIX

	Factor 1	Factor 2	Communality (Squared Multiple Correlations)
SAS	-.50	-.24	.16
CBS	.45	.35	.14
IOI	.73	-.23	.26
UIT	.37	-.03	.10
MAP	-.19	.50	.11

[3]The researcher generally reported only those factor loadings beyond ±.30.

The Varimax Rotated Two-Factor Solution. To get the "best fit" of data to factor structure and most meaningful results, the researcher next generated a two-factor matrix using Varimax rotation. Tables 17 and 18, below, display the factor structure and statistics associated with the Varimax rotated solution.

TABLE 17

VARIMAX ROTATED TWO-FACTOR MATRIX

	Factor 1	Factor 2	Communality (Squared Multiple Correlations)
SAS	-.55	-.03	.30
CBS	.56	-.09	.32
IOI	.52	.55	.58
UIT	.31	.21	.14
MAP	.07	-.53	.29

Table 18

EIGENVALUES FOR TWO-FACTOR SOLUTION

Factor	Eigenvalue	Percentage of Variance	Cumulative Percentage
1	1.15	70.3	70.3
2	.48	29.7	100.0

Here again, as observed in the two previous statistical treatments, irrational ideation, identity orientation and

(less strongly) uncritical inference behavior have lined up with the criterion, alienation, in factor one. Allness orientation, moreover, again has expressed its essential dissimilarity from the other measures, by appearing in factor two.

In the rotated solution, the CBS appears largely in factor one. The observation that the IOI loaded nearly equally on both factors, however, suggested that the measure had, within it, at least two discrete components. One of them (in factor one), apparently shared something with the total CBS and SAS scores. The other (in factor two) resembled the total MAP. The UIT appears a(n equivocal) contributor to both factors, as well. It displayed the lowest communality score.

Earlier procedures, of course, related both the CBS ($\underline{r}$ = -.31) and the IOI ($\underline{r}$ = -.34) to the SAS. They also related them to each other ($\underline{r}$ = .27). Little surprise, then, that these three instruments turned up on the same factor in this analysis.

While the MAP seems confined just to factor two, the IOI has spread out, reminiscent of its earlier (correlation matrix) pattern. Both the original, product moment ($\underline{r}$ = -.34), and the factor analytic IOI/MAP relationships, therefore, tend to confirm the apparent complexity, or conceptual breadth, of the IOI. The question, then: How to conceptualize these two components of the IOI?

The researcher suspected that the answer to this question lay in expanded analysis. Both the CBS (in factor one) and the MAP (in factor two), of course, have internal factor structures. It seemed, therefore, that inclusion of the CBS and MAP subscales[4] in the factor analytic process (in lieu of their total scores) would result in the formation of a few more discrete and more easily identifiable factors, to which the IOI, among others, then could attach itself.

Examination of Nineteen Scales & Subscales

Table 19 presents a matrix of correlation coefficients representing a cross between nineteen of the study's twenty-four scales and subscales. CBS and MAP total scores and the CBS second order factors don't appear, so that first order factors, alone (the most discrete subscales), may represent those tests and invite factor loading.

Cursory evaluation of the correlation table revealed that the strongest relationships represented there, not surprisingly, have resulted from crossing either a CBS or an MAP factor score with another CBS or MAP factor score. The MAP, as it happened, tended to correlate more highly with itself than did the CBS.

Apart from such statistically tautological (within-a-test) entries as these, however, another group of

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[4]So called, at points in this text, to avoid their confusion with the "factors" of this study's analysis.

TABLE 19

COEFFICIENTS OF CORRELATION BETWEEN
NINETEEN SCALES AND SUBSCALES

	SAS	IOI	UIT	CBS 1	CBS 2	CBS 3	CBS 4	CBS 5	CBS 6
SAS	1.00								
IOI	-.31	1.00							
UIT	-.16	.31	1.00						
CBS 1	-.37	.49	.38	1.00					
CBS 2	-.15	-.11	.11	.19	1.00				
CBS 3	-.32	.44	.21	.54	.03	1.00			
CBS 4	-.07	.18	-.07	.07	.02	.31	1.00		
CBS 5	.07	-.12	-.14	-.12	.23	.01	.30	1.00	
CBS 6	-.09	-.11	.13	.15	.28	-.04	-.29	-.01	1.00
CBS 7	-.33	.17	.03	.41	.25	.25	.05	.18	.07
CBS 8	-.12	.09	.09	.27	.27	.36	.28	.20	.13
CBS 9	-.02	.13	-.02	.07	-.02	.18	.39	.18	-.09
CBS 10	-.06	-.18	-.03	.05	.36	-.06	-.19	.01	.46
MAP 1	-.12	-.21	-.02	.00	.24	.03	-.10	.06	.25
MAP 2	.06	-.15	-.07	.03	.11	.07	-.06	.04	.06
MAP 3	.07	-.26	-.04	-.04	.15	-.05	-.15	-.01	.12
MAP 4	.10	-.31	-.02	-.12	.20	-.13	-.17	-.01	.10
MAP 5	-.04	-.03	.07	.14	.14	.10	.02	.02	.12
MAP 6	.00	-.14	-.05	.03	.10	.01	-.14	.01	.10

	CBS 7	CBS 8	CBS 9	CBS 10	MAP 1	MAP 2	MAP 3	MAP 4	MAP 5
SAS									
IOI									
UIT									
CBS 1									
CBS 2									
CBS 3									
CBS 4									
CBS 5									
CBS 6									
CBS 7	1.00								
CBS 8	.25	1.00							
CBS 9	-.02	.14	1.00						
CBS 10	.05	.08	.05	1.00					
MAP 1	.06	.08	-.05	.24	1.00				
MAP 2	-.06	.12	-.01	.11	.44	1.00			
MAP 3	-.09	-.02	-.15	.15	.50	.55	1.00		
MAP 4	-.16	-.03	-.14	.18	.38	.50	.74	1.00	
MAP 5	.05	.11	.00	.11	.26	.33	.29	.30	1.00
MAP 6	-.01	.01	-.13	.09	.49	.68	.56	.37	.16

coefficients in the table reflected significant relationships among certain independent variable scores. These, of course, both confirm findings that have appeared elsewhere among the analyses and promise to contribute valuably to the factor structure.

A third group of coefficients that stood out simply on visual inspection of the table related the criterion measure, the SAS, to a variety of independent variable scales and subscales.

The nineteen variable factor analytic procedure began, then, with some familiar (from earlier analyses) and some new correlation coefficients, from which it extracted the table of Eigenvalues (see table 20) that follows. Again, Squared Multiple Correlations served as communality estimates.

Inspection of the Eigenvalue sequence revealed that five fell above the usual cut-off (1.0). The dramatic drop between the fourth and fifth, however, suggested a four-, rather than a five-factor solution. The first four Eigenvalues represented 53.9 percent of the variance. Eigenvalues five through 19, moreover, appeared to form the familiar, slightly decreasing, linear trend associated with greatly diminished factor strength.

The Unrotated Four-Factor Solution. Of the four principal factors displayed in the unrotated factor matrix (see table 21, below), factor one appeared dominated by the MAP. None of its six subscales loaded more strongly on any

TABLE 20

EIGENVALUES FOR NINETEEN SCALES AND SUBSCALES

Factor	Eigenvalue	Percentage of Variance	Cumulative Percentage
1	3.70	19.5	19.5
2	2.99	15.7	35.2
3	1.83	9.6	44.8
4	1.71	9.0	53.9
5	1.11	5.8	59.7
6	.95	5.0	64.7
7	.84	4.4	69.1
8	.79	4.2	73.3
9	.71	3.8	77.1
10	.67	3.5	80.6
11	.56	3.0	83.6
12	.55	2.9	86.5
13	.50	2.6	89.1
14	.45	2.4	91.5
15	.42	2.2	93.7
16	.41	2.2	95.9
17	.31	1.6	97.5
18	.28	1.5	99.0
19	.19	1.0	100.0

other factor. Associated with the MAP on factor one, the IOI and two of the CBS subscales.

Five of the CBS subscales loaded strongly onto factor two. The IOI appeared there also. Both the SAS and the UIT loaded most heavily onto this factor.

TABLE 21

UNROTATED FOUR-FACTOR MATRIX

	Factor 1	Factor 2	Factor 3	Factor 4	Communality (Squared Multiple Correlations)
SAS	.12	-.46	.13	.04	.26
IOI	-.46	.45	-.01	-.35	.43
UIT	-.10	.32	-.23	-.18	.23
CBS 1	-.18	.78	-.20	-.21	.55
CBS 2	.27	.37	-.14	.45	.34
CBS 3	-.21	.66	.19	-.16	.45
CBS 4	-.30	.23	.64	.20	.39
CBS 5	.02	.08	.34	.46	.26
CBS 6	.28	.21	-.47	.27	.34
CBS 7	-.11	.45	-.08	.17	.33
CBS 8	-.02	.47	.16	.27	.29
CBS 9	-.19	.15	.31	.17	.22
CBS 10	.32	.15	-.32	.36	.33
MAP 1	.61	.23	.02	.05	.41
MAP 2	.68	.20	.28	-.19	.59
MAP 3	.80	.09	.12	-.19	.66
MAP 4	.72	-.01	.07	-.09	.62
MAP 5	.32	.24	.06	-.03	.19
MAP 6	.64	.16	.14	-.21	.57

Factor three belonged principally to the CBS. Five of its subscales loaded at .30 or above.

Three CBS subscales and the IOI dominated factor four.

As CBS subscales loaded across the four unrotated factors in excess of their own number; to reduce, if possible, the total number of variables loading significantly on each factor; and in pursuit, generally, of "best fit," the researcher again computed a four-factor matrix using Varimax rotation. The resulting factor structure and its supporting statistics appear in tables 22 and 23, below.

TABLE 22

VARIMAX ROTATED FOUR-FACTOR MATRIX

	Factor 1	Factor 2	Factor 3	Factor 4	Communality (Squared Multiple Correlations)
SAS	.01	-.47	-.13	-.04	.25
IOI	-.20	.65	-.27	.03	.54
UIT	-.03	.41	.05	-.15	.20
CBS 1	.04	.84	.12	.02	.72
CBS 2	.17	.11	.59	.21	.43
CBS 3	.08	.66	-.11	.30	.54
CBS 4	-.07	.10	-.25	.71	.59
CBS 5	.02	-.16	.17	.53	.34
CBS 6	.09	.10	.60	-.19	.42
CBS 7	-.05	.38	.25	.20	.25
CBS 8	.08	.29	.22	.42	.32
CBS 9	-.09	.07	-.07	.40	.18
CBS 10	.13	-.02	.59	-.05	.36
MAP 1	.59	-.00	.28	.01	.42
MAP 2	.79	-.01	-.02	.05	.63
MAP 3	.82	-.12	.07	-.12	.70
MAP 4	.68	-.20	.12	-.12	.54
MAP 5	.37	.12	.11	.05	.17
MAP 6	.70	-.00	.02	-.07	.50

TABLE 23

EIGENVALUES FOR FOUR-FACTOR SOLUTION

Factor	Eigenvalue	Percentage of Variance	Cumulative Percentage
1	3.23	39.9	39.9
2	2.45	30.3	70.2
3	1.27	15.7	85.9
4	1.14	14.1	100.0

The Varimax Rotated Four-Factor Solution. Of the four principal factors displayed in the Varimax rotated matrix table, factor one remained dominated by allness. All six of the MAP's subscales loaded there, beyond .30. None appeared elsewhere, except below that level. Neither did the IOI or CBS subscales, any longer, contribute importantly to factor one.

Factor two included a major contribution from each of the four remaining measures: the SAS, the CBS, the IOI and the UIT. A general factor, it revealed its basic theme in the content of the three CBS subscales represented there; one, "Perfectionism"; three, "Self-downing"; and seven, "Blame-proneness."

Factors three and four of the Varimax rotated, four-factor solution included only subscales of the CBS among its

major contributors. Each, in this regard, identified some aspect of the domain, irrational ideation.

Factor three included subscales two, "Realistic outlook"; six, "Happiness through passivity"; and ten, "Problem avoidance."

Factor four included subscales three, "Self-downing"; four, "Importance of approval"; five, "Internal causation of emotions"; eight, "Importance of the past"; and nine, "Reliance on the supernatural."

By loading heavily on factors two, three and four, in this solution, the CBS ultimately demonstrated greater complexity, or conceptual breadth, than the study's other measures. All ten of its subscales loaded on at least one of the factors, at or above the ±.30 level. Only one of them did so twice.

The IOI, although it spread out considerably earlier in the analysis, put its greatest strength into association with the other components of factor two. The UIT, MAP and SAS, as well, each loaded principally onto just one factor.

A discussion of the apparent relationships among the study's principal contributors to the analysis appears in Chapter V.

CHAPTER V

DISCUSSION

An Overview

This study's examination of alienation's relationship to certain semantic, or psycholinguistic, habit patterns has revealed significance at several points. The strongest such relationships appeared between alienation and both identity orientation and irrational ideation. Alienation related weakly to uncritical inference behavior, not at all to allness orientation.

Whether relatively strong or weak, however, all of alienation's statistically significant relationships with the study's major semantic variables went in the direction suggested by Cardaci's (1971) hypothesis. The high alienation student, in other words, displayed the predicted "semantic aberration." He stood out, in comparison with normal and low alienation students, as more committed to the rigidities and distortions of Aristotelian linguistic structure (IOI). He scored high in perfectionism, self-downing and blame-proneness (CBS subscales one, three and seven). And he tended, somewhat, to jump to conclusions (UIT).

A number of close associations appeared among the several semantic habits, as well--all but a very few of them in support of their measures' conceptual foundations. On a whole test basis, for instance, irrational ideation, identity orientation and uncritical inference behavior consistently displayed significant positive relationships (as expected), each with the others.

Careful inspection of the data, however, suggested that the relationships of the CBS to both the IOI and the UIT rested largely upon the positive correlations between each of the latter and CBS subscales one and three. Identity orientation and uncritical inference behavior relate more strongly to perfectionism and self-downing, then, than to other apsects of irrational ideation.

Throughout the analyses, the MAP stood essentially aloof from association with all but one of the study's other major measures. Allness displayed no association either with alienation or with uncritical inference behavior. It related, against prediction (positively), to three of ten indexes of irrational ideation. It related, as predicted (negatively), only to identity orientation.

The positive correlations that appeared among two MAP and three CBS subscales failed to produce a significant relationship between their respective total scores. They, nevertheless, related the tendency to express strong opinions about traditional authority and roles (MAP subscales one and

four) to low problem avoidance behavior, low passivity and a realistic outlook (CBS subscales one, six and ten). In this connection, of course, high allness appeared associated with rational, rather than with irrational, ideation--an indication that it may not, ipso facto, signal poor psychosocial adjustment.

The MAP related as expected with the IOI, the only instrument with which its internal agreements permitted an overall correlation in any direction. In this connection, the expression of strong opinions regarding authority, problem solving and traditional roles (MAP subscales one, three and four) related significantly to high identity orientation.

Interpretation of Findings

Throughout the course of the analysis, the researcher observed that each of the several data analytic procedures he employed yielded results supportive of those of each of the others. Each procedure, moreover, contributed its uniqueness to an examination of the relationships between the study's major variables.

Factor analysis, in this respect, provided perhaps the most comprehensive treatment. It brought together nineteen of the study's scales and subscales in a statistical "mix and shake," that produced a highly visual display of the contributions of each to their several overlapping domains.

An elaboration on the structure of the Varimax rotated, four-factor solution follows (see table 24, below).

Factor One: Allness

Factor one included all six scales of the MAP, a measure of allness. No other measure loaded on with any strength. The "purity" of the factor, in this case, however, made it virtually impossible to characterize--in terms of its content, at least. None of a subject's scores on any of the MAP's six internal scales says anything about his specific attitudes, values, or beliefs. MAP items have neither substantive "meaning," nor importance to the scoring procedure. They serve only to provoke the test-taker to respond. To the degree to which they elicit extreme responses, of course, the subject earns an "allness" score, a measure of the intensity, rather than the direction, of his commitment. Largely intact and apart from the study's other measures, then, the MAP (as a whole), a process measure, pretty much identified factor one as an index of allness orientation.

Where just one or two of the MAP's subscales clustered together with other variables, those subscales did take on some "character," by association. The researcher inferred, in this connection, that the MAP would serve its purpose best where this didn't happen to any significant extent. A group whose high allness scores derived from a fairly even balance

TABLE 24

COMPONENTS LOADING BEYOND ±.30 IN THE FACTOR STRUCTURE OF THE VARIMAX ROTATED, FOUR-FACTOR SOLUTION

FACTOR ONE Allness Orientation	FACTOR TWO IFD Disease	FACTOR THREE Commitment	FACTOR FOUR Locus of Control
MAP 1 (.59) Static orientation	SAS (.47) Alienation	CBS 2 (.59) Realistic outlook	CBS 3 (.30) Self-downing
MAP 2 (.79) Polar choice orientation	CBS 1 (.84) Perfectionism	CBS 6 (.60) Happiness through passivity	CBS 4 (.71) Importance of approval
MAP 3 (.82) Unidimensional orientation	CBS 3 (.65) Self-downing	CBS 10 (.59) Problem avoidance	CBS 5 (.53) Internal causation of emotions
MAP 4 (.68) Category orientation	CBS 7 (.38) Blame-proneness		CBS 8 (.42) Importance of past
MAP 5 (.37) Non-relational orientation	IOI (.65) Identity orientation		CBS 9 (.40) Reliance on supernatural
MAP 6 (.70) A-normal orientation	UIT (.41) Uncritical inference		

of "strongly agree" and "strongly disagree" responses, for instance, doubtless would generate different profiles on many personality measures from a group whose high allness scores represented mostly one or the other. In the latter case, scores would tend to reflect the direction, as well as the intensity of the subjects' sentiments.

In this study, of course, all of the MAP's subscales loaded onto factor one together, and those that appeared elsewhere came in below the acceptable load level (further discussion later in this chapter).

Factor Two: The IFD Disease

Factor two included the SAS, IOI and UIT. It also included subscales one, "Perfectionism"; three, "Self-downing"; and seven, "Blame-proneness" from the CBS. These three subscales, plus one that loaded elsewhere in this solution, comprise the first CBS second order factor, "Evaluation." These, CBS author Bessai (1975) collectively conceptualized as representing the importance of achievement and approval, as prerequisite for the acceptance of self and others.

The outstanding CBS "Evaluation" subscale, number four, "Importance of approval," made no contribution here, of course. The researcher, therefore, edited the composite "Evaluation" concept to better represent the three that remained in factor two. The obvious revision, in this

connection, expressed the importance simply of achievement as prerequisite for the acceptance of self and others. This theme, then, in combination with the SAS, IOI and UIT, began to characterize the factor.

What of substance, however, did the SAS, IOI and UIT actually contribute to the mix?

The IOI and UIT, as it happens, contributed very little--of substance. Like the MAP, they focus almost exclusively on process. Their appearance in association with CBS subscales one, three and seven, however, invited some rather compelling inferences.

The UIT, for instance, an extravagantly detailed and exasperatingly precise test of one's critical inference ability, practically demands, in the researcher's view, a certain tenacity of purpose in its completion. The subject with perfectionistic tendencies, therefore, likely would generate a higher UIT score than one who approached the instrument more casually. In this connection, then (if the researcher's inference proves sufficiently critical), the UIT "belongs" in factor two with "Perfectionism," the loading score of which surpassed those of all the other variables in the analysis.

The IOI apparently earned its place in factor two as a function of the relationship between the attitudinal and structural components of the factor's main theme. The

attitudinal component appears in a subject's commitment to a particular value or belief system, as tapped, in this instance, by the CBS. The structural component, on the other hand, appears not in a subject's particular value or belief commitments, but in the linguistic mechanism(s) with which he customarily expresses himself.

The mechanism represented by the IOI, of course, concerns the use of the basically Aristotelian linguistic model, or the frequency with which some form of the verb "to be" appears in the subject's repertoire. The IOI's inclusion in factor two, therefore, supported the observation that high levels of perfectionism, self-downing and alienation relate significantly to one's frequent use of the verb "to be." This makes some sense at an intuitive level, as the general semanticists have insisted for years. A tenacious attachment to a belief about how something "is," especially when, alas, it "is" not, would seem to have social/psychological disadvantages.

One such disadvantage, of course, may well bear the name alienation, or anomia, the test for which also loaded onto factor two. This occurrence more closely associated the SAS with the specific CBS subscales responsible for the relationship that appeared between the two whole scales throughout the data analysis. The highly alienated subject from this study's population sample, it seemed, not only

demanded that things go his way, but put both himself and others down when they didn't.

As a corollary to characterizing alienation in this fashion, the researcher noted, with interest, the CBS subscales that did not load significantly onto factor two. The alienated subject, in this instance, did not score high either on dependence, or on passivity, as one might have expected. Neither did he indicate an inordinate desire for the approval of others. If he suffered the disenchantment of not having his expectations met, then, he more likely bore an active grudge. The CBS subscale, "Blame-proneness," of course, speaks directly to this.

All in all, given the particular constellation of scales and subscales that appeared there, factor two seemed strongly to represent the "IFD Disease," Idealization, Frustration, Demoralization (Johnson, 1946). This process, Johnson said, would accompany the chronic, semantic misrepresentation of reality. Indeed, factor two brought together both the study's major semantic measures and, apparently, the principal components of the IFD process. Idealization and frustration all but perfectly define "Perfectionism" and "Self-downing" (CBS subscales one and three). The classic expression of personal/social demoralization, of course--alienation (the SAS).

Factor Three: Commitment

Of the three CBS subscales that make up factor three (two, six and ten), Bessai (1975) identified two of them, "Realistic outlook" and "Happiness through passivity" (two and six; CBS second order factor three), as reflecting the acceptance of reality. An appropriate inversion, then, in keeping with the discussion of factors in terms of their representative dysfunctions, might identify these components with the failure to accept reality.

The content of subscales "Realistic outlook" and "Happiness through passivity" appeared to the researcher, moreover, to reflect considerable denial and withdrawal. "Problem avoidance" items (CBS subscale ten), as well, as their collective name suggests, reflect a very low tolerance for the real or imagined "risks" of engagement or involvement. The intrafactor spectrum of scores, therefore, would seem to range from a low of inhibition and detachment to a high of assertiveness and concern. Overall, "commitment" seemed to express the factor's main theme rather well.

Factor Four: Locus of Control

Three of factor four's component subscales, five, "Internal causation of emotions"; eight, "Importance of the past"; and nine, "Reliance on the supernatural"; plus one that loaded elsewhere in this solution, Bessai (1975) identified as reflecting internal locus of control (CBS second order

factor two). That theme held, in the researcher's view, even after the inclusion of subscales three, "Self-downing" and four, "Importance of approval," into the cluster. Subscale four, in fact, speaks rather directly to the issue of control, and it loaded onto the factor with a top score of .71.

Inspection of content associated with the five subscales, then, revealed quite a comprehensive range of items in the general domain of control.

"Self-downing" speaks specifically to the belief that one's personal shortcomings can lead to emotional miseries that he cannot possibly avoid.

"Importance of approval," from Ellis' (1975) number one irrational idea, taps obsequious behavior, based on the belief that one must consistently please practically every "significant other."

"Internal causation of emotions" goes straight to the heart of the matter, simply by registering the subject's opinion about his ability to demonstrate emotional autonomy.

"Importance of the past" tests one's commitment to the belief that he never can overcome the influence of prior events.

"Reliance on supernatural power" estimates the strength of one's conviction that he cannot go it alone, and that his fate rests in someone else's hands.

The factor's low score, therefore, tends to represent a rather childlike or primitive, superstitious and dependent personal value structure. The overall domain: locus of control.

Implications

The outcome of this study speaks both to theoretical and clinical interests in alienation. Highlights from these perspectives follow.

Theoretician and clinician, alike, will note the particular profile of alienation$_{\text{college student}}^{1977}$Tampa Bay. The externality (locus of control) that often appears therein, for instance, seemed not so strong. Neither, of course, did the CBS truly qualify as a locus of control measure. High alienation subjects in this study, nevertheless, appeared more self- than other-dependent. At least until it came time to fix responsibility (blame) for failure, they seemed a reasonably inner-directed lot.

The clinician got a bonus in the emergence of so clear an IFD profile. The cognitive behaviorist did, in any case. His key entry point, for this group, centers in the expectancy/discrepancy area.

Findings also supported the appropriateness of regarding attribution as a contributor to the expression of alienation. As simple a measure as the IOI, of course, says little about the intracacies of the attributive process--nothing of its acquisition. These areas seem ripe for

further study. The data confirm, in any case, that this particular linguistic process does bear on one's psychosocial adjustment.

The importance both of uncritical inference and of allness to the explication of alienation seemed rather slight. The former made its closest association with CBS subscale one; the latter, with the IOI. Each of the four semantic measures represents a domain distinct enough from the others, however, that none of the intertest correlation coefficients exceeded .49. Considering that none of the intratest CBS correlations exceeded .54, the generally modest strength of association between measures didn't seem out of line.

A possible explanation for the MAP's almost total nonassociation with the SAS may lie in the conceptual differences between allness and alienation. The high allness score, in this case, signals intense commitment. High alienation, on the other hand, generally bespeaks a relatively low level of commitment.

Some support for this explanation appeared in the factor structure of the Varimax rotated, four-factor solution, where "commitment," as a theme, dominated factor three. Here, just below the ±.30 load level, MAP subscale one displayed its unexpected, but not altogether paradoxical, positive relationship with the CBS (.28). This would seem

to suggest that a high level of commitment (low problem avoidance, low passivity) did tend to associate with a strong allness orientation.

It remains to say simply that allness scores, as generated by the MAP, did not distinguish either between high and low alienation subjects, or between high and low scorers on most of the study's other measures.

Of the remaining three semantic measures, the CBS, of course, speaks to specific beliefs and attitudes; the IOI addresses a linguistic habit; the UIT measures a cognitive skill. That the three have related in an orderly and intuitively fathomable fashion, each to alienation and each to the others, cannot help but encourage the several behavior sciences' continued inquiry into the impact of language upon human behavior.

BIBLIOGRAPHY

BIBLIOGRAPHY

Abelson, R. "Modes of Resolution of Belief Dilemmas." Journal of Conflict Resolution, 1959, 3, 343-352.

Ansbacher, H. L., & Ansbacher, R. R. Individual Psychology of Alfred Adler. New York: Basic Books, 1956.

Argabrite, A. H., & Nidorf, L. J. "15 Questions for Rating Reason." Rational Living, 1968, 3(1), 9-11.

Bard, J. A. "A Self-rating Scale for Rationality." Rational Living, 1973, 8(1), 19. (a)

Bard, J. A. "Irrational Beliefs Assessment: Perspectives." Presented at the RET Research, Measurement and Assessment session of the First National Conference on Rational Psychotherapy. June, 1975, Chicago.

Baudhuin, E. S. "Rational Emotive Therapy and General Semantitherapy: A Review and Comparison." Etc. A Review of General Semantics, 1975, 32(2), 195-202.

Beck, A. T. "Thinking and Depression." Archives of General Psychiatry, 1963, 9, 324-333.

Beck, A. T., & Hurvich, M. S. "Psychological Correlates of Depression." Psychosomatic Medicine, 1959, 21, 50-55.

Bem, D. J. Beliefs, Attitudes and Human Affairs. Belmont, California: Brooks/Cole, 1970.

Benson, J. K. "Alienation and Academic Achievement: An Empirical Study of the Reactions of College Students to Academic Success and Failure." Ph.D. dissertation, University of Texas, 1965, abstract.

Berger, I. "Improving Composition Through Emphasis on Semantics and Critical Thinking." Ph.D. dissertation, Yeshiva University, 1965, abstract.

Besag, F. P. Alienation and Education. Buffalo, N. Y.: Hertillon Press, 1966.

Bessai, Judith L. "A Factorial Assessment of Irrational Beliefs." Master's thesis, Cleveland State University, 1975.

Bois, S. The Art of Awareness. Dubuque, Iowa: Wm. C. Brown Co., 1956.

Bois, S. Breeds of Men. New York: Harper & Row, 1970.

Borg, W. R., & Gall, M. D. Educational Research: An Introduction. New York: David McKay Co., 1971.

Bourland, D. D. A Non-Aristotelian Paradigm for Linguistics. Wichita Falls, Texas: By the Author, 1973.

Cardaci, E. "The Road to Radicalism: A Semantic Aberration." Etc., 1971, 28, 266-72.

Clark, J. P. "Measuring Alienation in a Social System." American Sociological Review, 1959, 24, 849-51.

Coleman, R. E. "The Manipulation of Self-esteem--A Determinant of Elation-depression." Dissertation Abstracts International, 1971, 32(2), 1205B.

Crabtree, R. G., & Ward, G., II. "A Note on Three RET-related Scales." Paper presented at the meeting of the West Virginia Academy of Sciences, April 1975.

Crowne, D. P., & Marlowe, D. "A New Scale of Social Desirability Independent of Psychopathology." Journal of Consulting Psychology, 1960, 24, 349-354.

Deane, G. E. "Human Heart Rate Responses During Experimentally Induced Anxieties: Effects of Instruction on Acquisition." Journal of Experimental Psychology, 1966, 67, 193-5.

Di Pietro, R., ed. Interfaces: Linguistics and Psychoanalysis 4 (December 1975).

Durkheim, E. The Division of Labor in Society. Translated by George Simpson. New York: The MacMillan Co., 1933.

Eisenberg, J. M., & Zingle, H. W. "Marital Adjustment and Irrational Ideas." Journal of Marriage and Family Counseling, 1975, 1, 81-91.

Ellis, A. Reason and Emotion in Psychotherapy. New York: Lyle Stuart, 1962.

Goldfried, M., & Sobocinski, D. "Effect of Irrational Beliefs on Emotional Arousal." Journal of Consulting and Clinical Psychology, 1975, 43(4), 504-510.

Goodman, D. S., & Maultsby, M. C., Jr. Emotional Well-being Through Rational Behavior Training. Springfield, Ill.: Charles C. Thomas, 1974.

Gough, H. California Psychological Inventory, Manual. Palo Alto, Calif.: Consulting Psychologists Press, 1957.

Gould, L. J. "The Alienation Syndrome: Psycho-social Correlates and Behavioral Consequences." Ph.D. dissertation, University of Connecticut, 1965.

Gould, L. J. "Conformity and Marginality: Two Faces of Alienation." Journal of Social Issues, 1969, 25(2), 39-63.

Haney, W. V. "Measurement of the Ability to Discriminate Between Inferential and Descriptive Statements." Ph.D. dissertation, Northwestern University, 1953.

Haney, W. V. "Police Experience and Unconscious-Inference Behavior." General Semantics Bulletin, 1958, 22 & 23,

Hartman, B. J. "60 Revealing Questions for 20 Minutes." Rational Living, 1968, 3(1), 7-8.

Hayakawa, S. I. Language in Thought and Action. New York: Harcourt Brace & World, 1964.

Heider, F. The Psychology of Interpersonal Relations. New York: Wiley, 1958.

Hopkins, R. F. "A Replication Study of an Experiment Applying Non-Aristotelian Principles in the Measurement of Adjustment and Maladjustment." Ph.D. dissertation, Michigan State University, 1958.

Horman, R. E. "Alienation and Student Drug Use." Ph.D. dissertation, Illinois Institute of Technology, 1971, abstract.

Horney, K. Neurosis and Human Growth. New York: Norton, 1950.

Horney, K. Cited by Gordon & Gergen, The Self in Social Interaction. New York: John Wiley & Sons, 1968.

Isaac, S. Handbook in Research and Evaluation. Edits Publishers, San Diego, California, 1971.

Jackson, D. W. "Stage Factors Relating Alienation and Self-role Diffusion." Journal of Vocational Behavior, 1974, 5(2), 269-74.

Jarrell, E. "How I Overcame Extreme Depression." Rational Living, 1969, 4(1), 67.

Johnson, K. General Semantics: An Outline Survey. University of Wisconsin-Extension, 1960.

Johnson, W. People in Quandaries. New York: Harper, 1946.

Jones, R. G. "A Factored Measure of Ellis' Irrational Belief System with Personality and Maladjustment Correlates." Ph.D. dissertation, Texas Technological College, 1968.

Josephson, E., & Josephson, M., eds. Man Alone: Alienation in Modern Society. New York: Dell Publishing Co., 1962.

Keniston, K. The Uncommitted: Alienated Youth in America. New York: Dell Publishing Co., 1960.

Keniston, K. "The Psychology of Alienated Students." Cited by Gordon & Gergen (eds), The Self in Social Interaction. New York: John Wiley & Sons, 1968.

Keniston, K. Young Radicals. New York: Harcourt Brace & World, 1968. (b)

Kon, I. S. "The Concept of Alienation in Modern Sociology." In Marxism and Sociology, pp. 146-7. Edited by Peter Berger. New York: Appleton-Century-Crofts, 1969.

Korzybski, A. Manhood of Humanity. Lakeville, Conn.: The International Non-Aristotelian Library Publishing Co., 1950.

Korzybski, A. Science and Sanity. 4th ed. Lakeville, Conn.: The International Non-Aristotelian Library Publishing Co., 1958.

Kottman, E. J. "A Quantitative Study of the Relationship Between Linguistic Command, Degree of Intensional Orientation, and Authoritarianism." Ph.D. dissertation, University of Iowa, 1963.

Laughridge, S. "Differential Diagnosis with a Test of Irrational Ideation." Rational Living, 1975, 10(2), 21-23.

Leech, G. N. Semantics. Harmondsworth, Pa.: Penguine Books, 1974.

Lindesmith, A., & Strauss, A. Social Psychology. Chicago: Holt, Rinehart and Winston, 1968.

Livingston, H. "The Effect of Instruction in General Semantics on the Reading Ability of Tenth Grade Students." Ph.D. dissertation, New York University, 1964, abstract.

Lovaas, O. I. "Cue Properties of Words: The Control of Operant Responding by Rate and Content of Verbal Operants." Child Development, 1964, 35, 245-256.

MacDonald, A. P., & Games, R. G. "Ellis' Irrational Values." Rational Living, 1972, 7(2), 25-28.

MacDonald, A. P., Jr., & Tseng, M. S. "Dimensions of Internal Versus External Control Revisited: Toward the Development of a Measure of Generalized Expectancy." Unpublished manuscript, West Virginia University, 1971.

Mannheim, K. Man and Society in an Age of Reconstruction. New York: Harcourt, Brace & Co., 1940.

Marx, Karl. Economic and Philosophic Manuscripts of 1844, trans. by Martin Milligan. London: Lawrence and Wishart, 1959.

Maultsby, M. Handbook of Rational Self-Counseling. Lexington, Kentucky: Association for Rational Thinking, 1971.

McElroy, A. D. "A Pre-experimental Study Examining the Influence of Meta-Aristotelian Training on Allness Orientations." Ph.D. dissertation, University of Wyoming, 1975, abstract.

McElroy, A. D. "An Experimental Study Examining the Effects of Meta-Aristotelian Training on Allness Orientations," Etc., 1976, 33(4), 453-60.

Meichenbaum, D. "Theoretical and Treatment Implications of Developmental Research on Verbal Control of Behavior." Canadian Psychological Review, 1975, 16(1), 22-27.

Meichenbaum, D., ed. Cognitive Behavior Modification Newsletter, 1976, 2, University of Waterloo.

Meichenbaum, D., & Cameron, R. "The Clinical Potential of Modifying What Clients Say to Themselves." Psychotherapy: Theory, Research and Practice, 1974, 11, 103-119.

Merton, Robert K. Social Theory and Social Structure. Glencoe: The Free Press, 1963.

Michael, S. T. "Authoritarianism, Anomia and the Disordered Mind." Acta Psychiatrica Scandinavica, 1967, 43(3), 286-299. Abstract.

Miller, C., & Butler, E. "Anomia and Eunomia: A Methodological Evaluation of Srole's Anomia Scale." American Sociological Review, 1966, 31, 400-405.

Mitchell, F. H. "A Test of Certain Semantic Hypotheses by Application to Client-Centered Counseling Cases: Intensionality-extensionality of Clients in Therapy." Ph.D. dissertation, Wabash College, 1951.

Mizruchi, E. H. Success and Opportunity: A Study of Anomie. New York: Free Press, 1964.

Mizruchi, E. H. "Alienation and Anomie: Theoretical and Empirical Perspectives." In I. L. Horowitz (ed.), The New Sociology. New York: Oxford University Press, 1965, pp. 253-267.

Myers, D. E. "Application of the Semantic Differential to a Multidimensional Definition of Alienation." Ph.D. dissertation, Nova University, 1972.

National Institute of Mental Health. Social Aspects of Alienation. Washington, D. C., U. S. Government Printing Office, 1969.

Neider, L. "Conceptual Analysis of Alienation in Current Theory and Research." Ph.D. dissertation, South Dakota State University, 1971.

Neisser, U. Cognitive Psychology. New York: Appleton-Century-Crofts, 1966.

Nettler, G. "On Being 'Alienated.'" American Sociological Review, 1969, 34.

Nie, N. H. Statistical Package for the Social Sciences. New York: McGraw-Hill Book Co., 1975.

Nisbet, R. A. The Sociological Tradition. New York: Basic Books, Inc., 1966.

Nisbett, R. E., & Schacter, S. "Cognitive Manipulation of Pain." Journal of Experimental Social Psychology, 1966, 2, 227-236.

Nunnally, J. C. Psychometric Theory. New York: McGraw Hill, 1967.

O'Connel, W. E., & Hanson, P. G. "The Negative Nonsense of the Passive Patient." Rational Living, 1971, 6(1), 24-27.

Postman, N. Crazy Talk, Stupid Talk. New York: Delacorte Press, 1976.

Powell, E. H. The Design of Discord. New York: Oxford University Press, 1967.

Ralph, R. "A Study to Determine the Effects of Instruction in and Exposure to General Semantics on the Personality Adjustment of Elementary School Children." Ph.D. dissertation, University of Maryland, 1971, Abstract.

Rapoport, A. Operational Philosophy. San Francisco: International Society for General Semantics, 1969.

Richardson, F., & Suinn, R. "Anxiety Management Training: A Non-specific Behavior Therapy Program for Anxiety Control." Behavior Therapy, 1971, 2, 498-510.

Rimm, D. C., & Litvak, S. B. "Self-verbalization and Emotional Arousal." Journal of Abnormal Psychology, 1969, 74(2), 181-187.

Robinson, J. P., & Shaver, P. R., eds. Measures of Social Psychological Attitudes. Revised ed. Ann Arbor, Michigan: University of Michigan, 1973.

Rokeach, M. Beliefs, Attitudes, and Values. San Francisco: Jossey-Bass, 1968.

Rotter, J. B. "Generalized Expectancies for Internal vs. External Control of Reinforcements." Psychological Monographs, 80:1-28 (whole #609).

Schacter, S., & Singer, J. E. "Cognitive, Social, and Physiological Determinants of Emotional State." Psychological Review, 1962, 69, 379-399.

Schwartz, D. A. Unpublished letter, dated October 28, 1969, University of California at San Diego.

Seeman, M. "On the Meaning of Alienation." American Sociological Review, 1959, 24.

Seeman, M. "Alienation and Engagement." In A. Campbell and P. E. Converse (eds.), The Human Meaning of Social Change. New York: Russell Sage, 1972.

Seeman, M. "Alienation Studies." American Sociological Review, 1975, 91-123.

Siegel, A. E. "Relationships Among Uni- and Multi-dimensional Alienation Constructs and Social Interation/Behavior Variables: A Survey of College Freshmen." Ph.D. dissertation, Boston University School of Education, 1970.

Simmel, G. The Sociology of Georg Simmel. Translated by Kurt H. Wolf. Glencoe, Illinois: Free Press, 1950.

Simmons, D. D. "Further Psychometric Correlates of the Identity Achievement Scale." Psychological Reports, 1973, 3(2), 32.

Simmons, J. L. "The Relationship Between Attitude Position, Alienation, and Personal Disturbance." Ph.D. dissertation, State University of Iowa, 1963.

Simmons, J. L. "Some Intercorrelations Among Alienation Measures." Social Forces, 1966, 44(3), 370-372.

Smart, R. G., & Jones, D. "Illicit LSD Users: Their Personality Characteristics and Psychopathology." Journal of Abnormal Psychology, 1970, 75(3), 286-292.

Snider, J. "Studies of All-inclusive 'Conceptualization.'" General Semantics Bulletin, 1959, 36, 51-56.

Sorhaindo, A. L. "The Relationship Between Value-expectancy Discrepancy and Alienation in College Students." Ph.D. dissertation, Ohio State University, 1970.

Spinelli, L. "Alienation and Identity: A Comparative Analysis of Blue-collar and Counter-culture Values." Ph.D. dissertation, Ohio State University, 1971, abstract.

Srole, L. "Social Integration and Certain Correlaries: An Exploratory Study." American Sociological Review, 1956, 21, 709-717.

Steinberg, D. D. Semantics: An Interdisciplinary Reader in Philosophy, Linguistics, and Psychology. University Press, 1971.

Stokols, D. "Toward a Psychological Theory of Alienation." Psychological Review, 1975, 82(1), 26-44.

Streuning, E., & Richardson, A. "A Factor Analytic Exploration of the Alienation, Anomia and Authoritarianism Domain." American Sociological Review, 1965, 30, 768-776.

Strongman, K. The Psychology of the Emotions. New York: John Wiley & Sons, 1973.

Taviss, I. "Changes in the Form of Alienation: The 1900's versus the 1950's." American Sociological Review, 1964, 34(1), 46-57.

Taylor, J. A. "A Personality Scale of Manifest Anxiety." Journal of Abnormal and Social Psychology, 1953, 48, 285-290.

Thibaut, J., & Kelley, H. The Social Psychology of Groups. New York: John Wiley & Sons, 1959.

Time Magazine, May 23, 1969, "Behavior" section, p. 69.

Tolman, E. C. Purposive Behavior in Animals and Man. New York: Appleton-Century-Crofts, 1932.

Tolor, A. "Alienation as Measured by Three Different Instruments." Journal of Psychology, 1974, 86(2), 297-302.

Tonnies, F. Community and Society. Translated by C. P. Loomis. New York: Harper Torchbook, 1963.

Toqueville, A. de. Democracy in America. New York: Alfred A. Knopf, 1945.

Trexler, L. D. "A Review of Rational-emotive Psychotherapy Outcome Studies." Paper presented at the meeting of the first National Conference on Rational Psychotherapy, Chicago, June 1975.

Trexler, L. D., & Karst, T. O. "Rational-emotive Therapy, Placebo, and No-treatment Effects on Public Speaking Anxiety." Journal of Abnormal Psychology, 1972, 79, 60-67.

Trexler, L. D., & Karst, T. O. "A Further Validation for a New Measure of Irrational Cognitions." Journal of Personality Assessment, 1973, 37, 150-155.

True, S. R. "A Study of the Relation of General Semantics and Creativity." Ph.D. dissertation, University of Wisconsin, 1964.

Valins, S., & Ray, A. A. "Effect of Cognitive Desensitization on Avoidance Behavior." Journal of Personality and Social Psychology, 1967, 7, 345-350.

Velten, E., Jr. "A Laboratory Task for Induction of Mood States." Behavior Research and Therapy, 1968, 6, 473-482.

Vertes, R. "The Rational Emotion: A Definition." Rational Living, 1968, 4(2), 19-21.

Waugh, N. M. "Rationality and Emotional Adjustment: A Test of Ellis' Theory of Rational-emotive Psychotherapy." Unpublished Ph.D. dissertation, Case Western Reserve University, 1975, abstract.

Weiss, T. M. "An Experimental Study Applying Non-Aristotelian Principles in the Measurement of Adjustment and Maladjustment." Ph.D. dissertation, Michigan State College, 1954.

Weiss, T. M. "An Experimental Study Applying Non-Aristotelian Principles in the Measurement of Adjustment and Maladjustment." Science Education, 1956, 40, 312-316.

Weiss, T. M. "Additional Evidence Supporting Korzybskian Principles." Science Education, 1961, 45, 114-118.

Wheelis, A. The Quest for Identity. New York: W. W. Norton Co., 1958.

Whittaker, D. N. "Psychological Characteristics of Alienated, Nonconformist, College-age Youth as Indicated by AVL, OPI, ACL and SVIB-M/W Group Profiles." Ph.D. dissertation, University of California, Berkley, 1967.

Whyte, D. R. "Social Alienation Among College Students." Ph.D. dissertation, Cornell University, 1963.

Wrightsman, L. S. (ed.) Contemporary Issues in Social Psychology. Belmont, Calif.: Brooks Publishing Co., 1968.

Yankelovich, D. The Changing Values on Campus: Political and Personal Attitudes of Today's College Students. New York: Washington Square, 1972.

APPENDICES

APPENDIX A

LIST OF CLASSES

COURSE TITLE	SCHOOL/CAMPUS	INSTRUCTOR	NO. OF SECTIONS
Industrial Psych.	UT	Duffy	one
Marriage & the Family	SPJC-Cl	Stout	three
Intro. to Human Services	SPJC-SP	Doherty	one
Personality	SPJC-Cl	Wickham	one
General Psych.	SPJC-Cl	Smith	one
Adolescent Development	SPJC-Cl	Stead	one
Intro. to Sociology	SPJC-Cl	Worley	two
Intro. to Guidance	USF	Maddox	one
Intro. to Guidance	USF	Beach	one
General Psych.	SPJC-Cl	Stout	one
General Psych.	UT	Duffy	one
American Govt. 1	SPJC-Cl	Thompson	two
Roles & Functions of Human Service Workers	SPJC-SP,Cl	Davis	two
General Psych.	SPJC-Cl	Wickham	two
Intro. to Guidance	USF	Patouillet	one
American Govt. 2	SPJC-Cl	Thompson	one
General Psych.	SPJC-Cl	Worley	one
Florida History	SPJC-Cl	Scott	one
Child Development	HCC-Ybor	Russell	one
Intro. to Advertising	USF	Hilewick	one
Media Strategies	USF	Hilewick	one
Advanced Study of Varying Exceptionalities	SPJC-Cl	Whitaker	one
Human Relations	P-HCC-NPR	Moses	one
General Psych.	HCC-DM	Parr	one

APPENDIX B

HUMAN VALUES SURVEY PARTICIPANT CONSENT FORM

Your participation in this survey will involve answering 339 questions about what you believe and how you think. It will take from an hour to an hour and a quarter to complete.

Because this study identifies its participants solely by number, age, grade, sex, race, height, weight and curriculum, you need not put your name on any of the survey materials. Please consider, in this regard, that you have complete personal anonymity, as a research participant.

You also should know that you have no obligation, whatever, to participate in this study. You have every right to decline to do so. Whether you do or don't participate, however, the survey materials, both questionnaires and answer sheets, remain the property of the researcher.

If you do choose to complete the survey, you must interpret the intent, or meaning, of the questions, in light of your own personal experience. The researcher cannot guide you, in this regard. He gladly will answer questions about the use of the materials, however. And you may arrange to learn more about the outcome of the study through your instructor, at a later date.

American Psychological Association guidelines require that research participants know, in advance, both of the nature of the study in which they participate and of their right to withdraw from participation at any point. Accordingly, the researcher asks that you read, sign and return the consent statement below, before proceeding with the survey.

> "I hereby consent to voluntary participation in the Human Values Survey, as described to me by the researcher, Mr. Robert H. Moore. I understand that I participate anonymously and that I have the right to withdraw from participation at any point."

Signature: _____

Date: _____

APPENDIX C

DEMOGRAPHIC VARIABLE QUESTIONNAIRE

1) PARTICIPANT IDENTIFICATION NUMBER: _____.

2) AGE: _____ years.

3) GRADE: _____ Freshman _____ Junior _____ Graduate
_____ Sophomore _____ Senior

4) SEX: _____ Female _____ Male

5) RACE: _____ Caucasian _____ Negro _____ Amer. Indian
_____ Oriental _____ Other

6) HEIGHT: _____ feet, _____ inches.

7) WEIGHT: _____ pounds.

8) CURRICULUM: _____ Two year vocational (AS)
_____ Two year academic (AA, AS)
_____ Four year academic (BA, BS)
_____ Five year professional (MS)
_____ Graduate (any level)
_____ Non-degree

APPENDIX D

VARIABLE NAMES*

1) SUBJECT IDENTIFICATION NUMBER
2) AGE
3) GRADE
4) SEX
5) RACE
6) HEIGHT
7) WEIGHT
8) CURRICULUM
9) SAS TOTAL ALIENATION
10) CBS TOTAL IRRATIONAL IDEATION
11) CBS FOF** ONE PERFECTIONISM
12) CBS FOF TWO REALISTIC OUTLOOK
13) CBS FOF THREE SELF DOWNING
14) CBS FOF FOUR IMP OF APPROVAL
15) CBS FOF FIVE CAUS OF EMOT
16) CBS FOF SIX HAPP THRU PASS
17) CBS FOF SEVEN BLAME PRONENESS
18) CBS FOF EIGHT IMP OF THE PAST
19) CBS FOF NINE REL ON SUP POWER
20) CBS FOF TEN PROBLEM AVOIDANCE
21) CBS SOF ONE EVALUATION

* as listed in the computer file
** "Key" on next page

APPENDIX D (Continued)

22) CBS SOF TWO INT LOC OF CONTROL

23) CBS SOF THREE REAL OUTLOOK

24) IOI TOTAL IDENTITY ORIENTATION

25) UIT TOTAL UNCRIT INF BEHAVIOR

26) MAP TOTAL ALLNESS ORIENTATION

27) MAP TOTAL NONALLNESS ORIENT

28) MAP FOF ONE STATIC ORIENT

29) MAP FOF TWO POL CHOICE ORIENT

30) MAP FOF THREE UNIDIMEN ORIENT

31) MAP FOF FOUR CATEGORY ORIENT

32) MAP FOF FIVE NONRELAT ORIENT

33) MAP FOF SIX ANORMAL ORIENT

Key

FOF = First Order Factor

SOF = Second Order Factor

SAS = Srole Anomia Scale

CBS = Common Beliefs Survey

IOI = "Is of Identity" Test

UIT = Uncritical Inference Test

MAP = McElroy Affective Profile

Variables	Function
1 thru 8	demographic
9	dependent variable
10 thru 33	independent variables